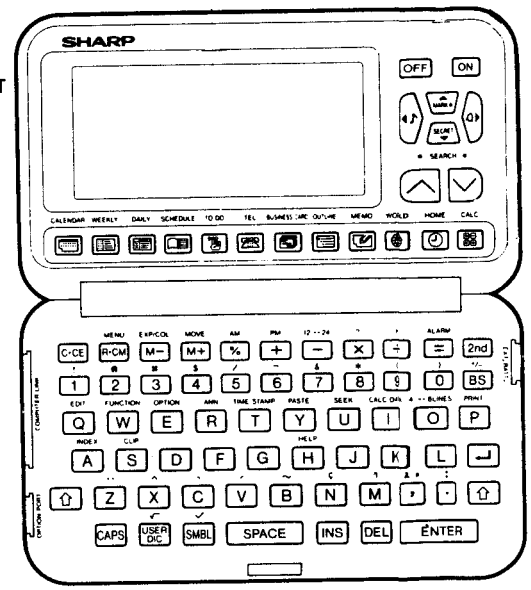
ZQ-6000

SHARP SERVICE MANUAL

CODE: 00ZZQ6000SM/E

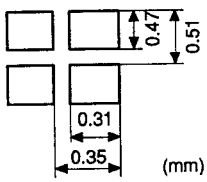
MODEL YO-600/610 ZQ-6000/6200 ZQ-6100M/6300M

KEY LAYOUT



STANDARD FUNCTION
10 digits 1 M

DISPLAY SECTION
ELEMENT: FST LCD
NUMERAL: 40 digits (8 lines)



Character size: 6.7(W) x 7.63(H)
Pitch: 6.75(mm) (15 x 16 dot)

LSI
CPU: SC62015C03
Display: HD66108TA
RTC: SMC6115F

POWER SUPPLY
AC: X DC: O
Main power supply: 6 VDC, lithium batteries (CR2032 x 4)
Memory backup power: 3 VDC, lithium battery (CR2032 x 1)

POWER CONSUMPTION
0.12 W

AUTO POWER OFF TIME
6 minutes

MEMORY PROTECT
Yes

DIMENSIONS
Open: 150(W) x 170(D) x 10.5(H)mm 5-29/32"(W) x 6-11/16"(D) x 13/32"(H)
Closed: 150(W) x 85(D) x 18.4(H)mm 5-29/32"(W) x 3-11/32"(D) x 23/32"(H)

Weight
Approx. 225g (0.51b) (including batteries)

CALCULATIONS
Functions: addition, subtraction, multiplication, division; constant, square root, percent, memory calculation, estimation
Digits: 10 digits

Serial input/output
Type of transmission: Asynchronous half-duplex/fulliduplex
Transmission speed: 300, 600, 1200, 2400, 4800, 9600 bps
Parity bit: even, odd, none
Word length: 7 or 8 bits
Stop bit: 1 or 2 bits
Connector used: 15-pin connector
Output signal level: C-MOS level (4 to 6 volts)
Interface signals: Input; RD, CS, CD, DR, CI
Output; SD, RS, RR, ER
Other; SG, VC, FG

Operating temperatures
0°C to 40°C (32°F to 104°F)

Display
240 x 64 dot matrix liquid crystal display
40 columns x 8 lines (with 6 x 8 dot characters)
30 columns 4 lines (with 8 x 16 dot characters)

Electronic notebook section

Telephone function	Entry and recall of 3 standard fields (name, phone number and address) plus5 free fields
Schedule function	Entry and recall of dates, appointment times and details of appointments Automatic day-forward function, schedule alarm function, display of daily and weekly events
Calendar function	Display of calendars from January 1901 to December 2099 Schedule mark function distinguishing between morning and afternoon appointments Anniversary, Period and To Do entry mark function
Anniversary & Period function	Entry and recall of anniversaries and periodic events
Business Card function	Entry and recall of 8 standard fields (company name, department, phone number, fax number, office address, personal name, position and extension/direct call number) plus 5 free fields
Outline Processor function	Creation of outline files, entry and recall of topics
Memo function	Entry and recall of everyday memos Memo data calculation function
To Do function	Entry and recall of items assigned a priority and up to 5 categories Recall via filters

Parts marked with "⚠" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice

Memory capacity	YO-600/ZQ-6000/ZQ-6100M 64 Kbytes (User area: Approx. 43 Kbytes) Schedule mode capacity: Approx. 660 entries Telephone mode capacity: Approx. 940 entries Memo mode capacity: Approx. 290 entries YO-610/ZQ-6200/ZQ-6300M 128 Kbytes (User area: Approx. 107 Kbytes) Schedule mode capacity: Approx. 1,740 entries Telephone mode capacity: Approx. 2,470 entries Memo mode capacity: Approx. 780 entries • The approximate entry capacities above assume the following average entry sizes when all memory is used by a single mode. SCHEDULE Description 32 characters/entry TEL Name 16 characters/entry Number 12 characters/entry MEMO 128 characters/entry
Maximum character string length per data item	2,048 characters Up to 2,048 characters per description in TO DO mode, and 2,048 characters per topic in OUTLINE mode 2,088 characters per entry in BUSINESS CARD mode
Other features	Secret function, user dictionary, data transfer, global seek search, index display, help function, etc.

Clock
Crystal oscillation frequency: 32,768 Hz
Clock precision: Average variance per day, 1.5 seconds (at 25°C/70°F)
Content of displays: year, month, day, day of week, hours, minutes, A.M./P.M., city names, time zone on world map
Time system: 12-hour or 24-hour clock
World clock function: Display of date and time for the world's cities. Enable/disable control for daylight saving time display function.

Operating time
The time may vary depending on usage.
Operating batteries:

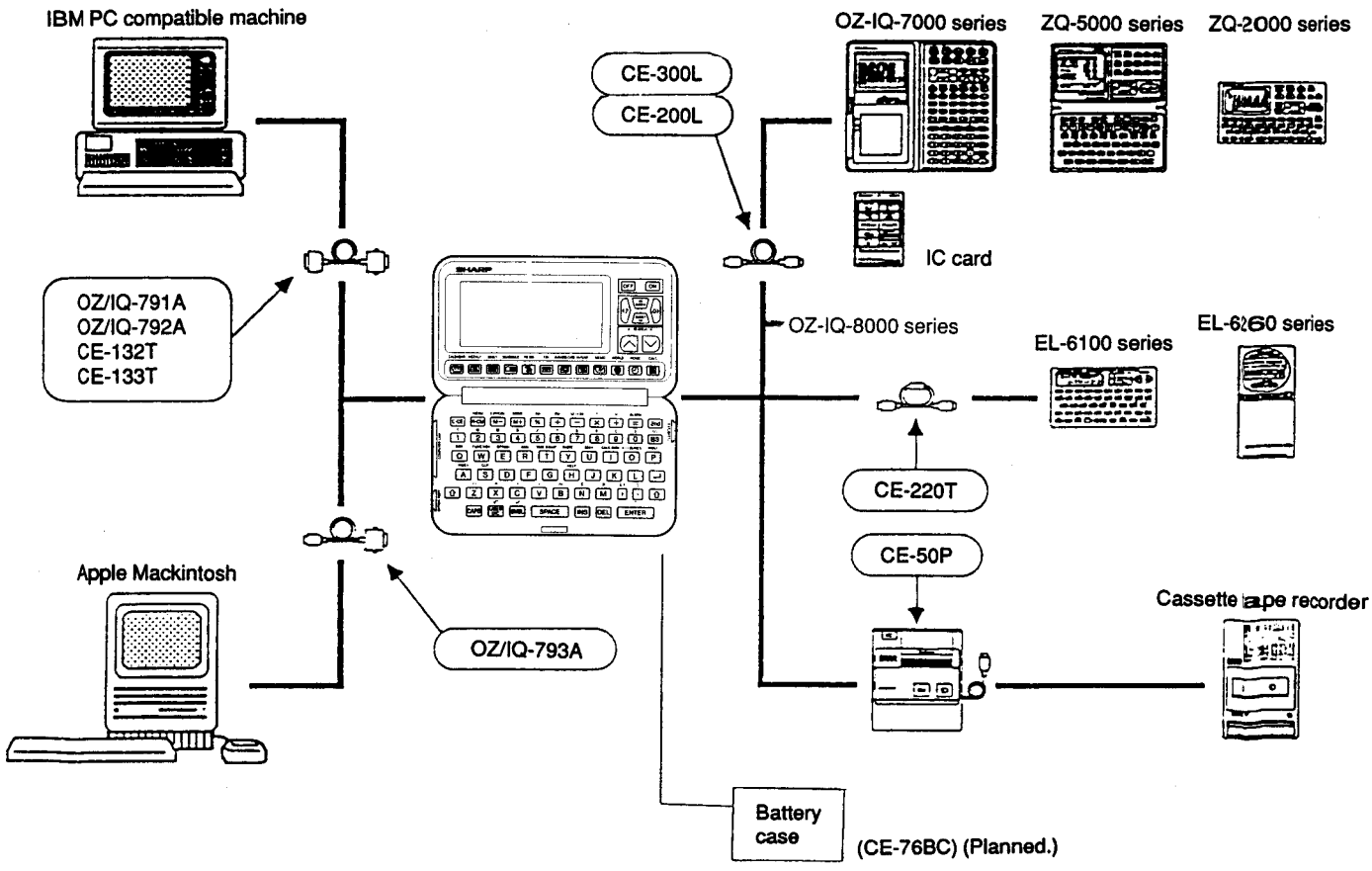
- Approx. 150 hours (4 months of 1-hour continuous use per day) Continuous display, ambient temperature 20°C (68°C)
- Approx. 95 hours (2.5 months of 1-hour continuous use per day) 5-minutes data search and 55-minutes display per hour, ambient temperature 20°C (68°C)
- Approx. 1.5 years
  With the Organizer OFF and the clock running

Memory backup battery:

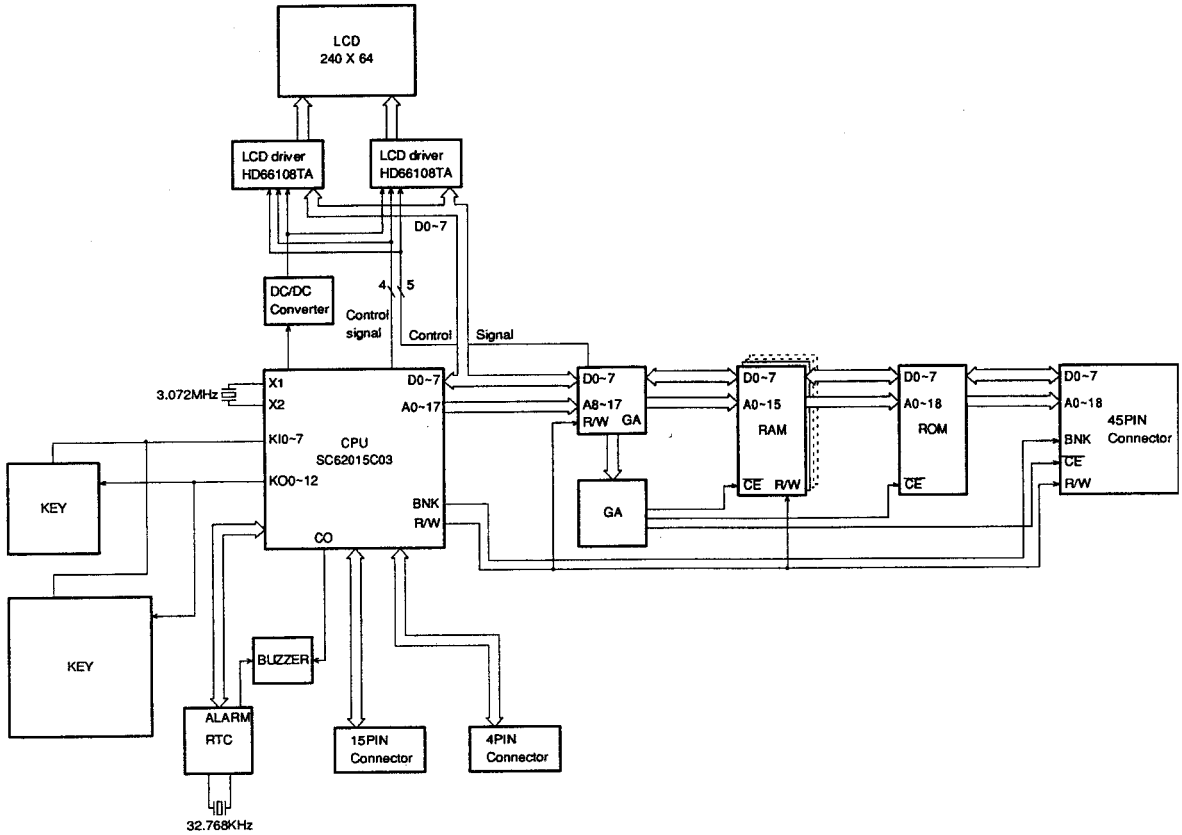
- Approx. 5 years (if operating batteries are replaced promptly when depleted)
- Approx. 1 year (if operating batteries are depleted or not installed)

Accessories
Lithium batteries (CR2032 x 5)
Operation manual

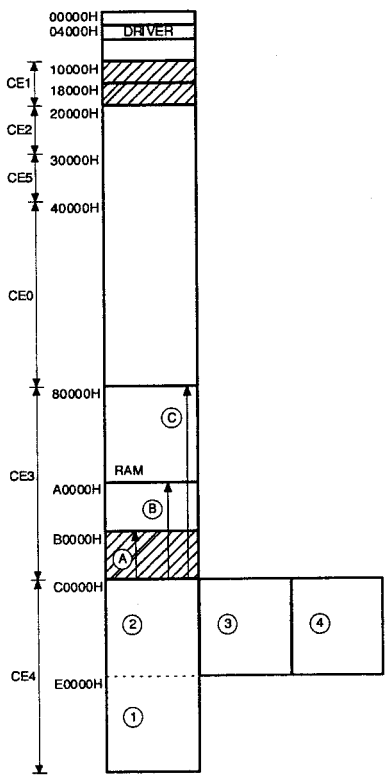
1. YO-600/610, ZQ-6000/6200, ZQ-6100M/6300M SYSTEM CONFIGURATION



2. Internal block diagram



3. Memory map



	System Rom	Size
YO-600, YO-610, ZQ-6000, ZQ-6100M ZQ-6200, ZQ-6300M	① + ② + ③ + ④	4Mbits

Internal Memory

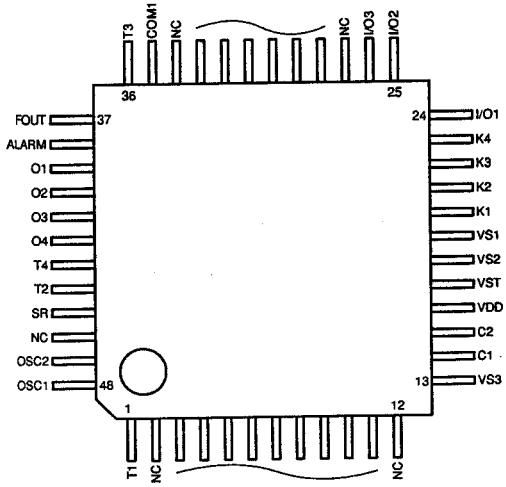
YO-600, ZQ-6000, ZQ-6100M	Ⓐ	64KB
YO-610, ZQ-6200, ZQ-6300M	Ⓑ	128KB

4. CPU (SC62015C03) terminal descriptions

Terminal No.	Signal name	Input/Output	Descriptions
1	X1	Output	Ceramic oscillation output
2	X2	Input	Ceramic oscillation output
3	X3	Output	CR oscillation output
4	X4	Input	CR oscillation input
5	VDD	Output	Display power
6	VCC	Power	Power (+)
7	RESET	Input	Reset input terminal. Reset at
8	GND	Power	Power (–)
9	TEST	Input	Test input
10	CI	Input	
11	CO	Output	Buzzer drive output (Key click sound)
12	ON	Input	ON KEY input terminal
13	WR	Output	Write clock
14	MRQ	–	Not used
15	KI0	Input	KEY input terminal
〃	〃	〃	〃
22	KI7	Input	KEY input terminal
23	DIO 0	Input/Output	Data bus
〃	〃	〃	〃
30	DIO 7	Input/Output	Data bus
31	A0	Output	Address bus
〃	〃	〃	〃
49	A18	Output	Address bus
50	VDISP	–	Not used.
51	VA	–	Not used.
52	ϕD	–	Not used.
53	KO15	Output	15 pin ER signal (Data terminal ready)
54	KO14	Output	15 pin RR signal (Receive enable)
55	KO13	Output	ON KEY strobe signal
56	KO12	Output	KEY strobe signal
57	KO11	Output	KEY strobe signal
58	KO10	Output	KEY strobe signal
59	IRQ	Input	Interrupt input terminal (Active low)
60	ϕOUT	—	Not used.
61	CE7	Output	LCD driver slave side chip enable signal.
62	CE6	Output	LCD driver master side chip enable signal.
63	CE5	Output	45pin external RAM chip enable signal 300000H~3FFFFH
64	CE4	Output	Internal ROM chip enable signal C0000H~FFFFFH
65	CE3	Output	45pin external ROM chip enable signal 80000H~BFFFFH
66	CE2	Output	45pin external RAM chip enable signal 20000H~2FFFFH
67	CE1	Output	Internal RAM chip enable signal 10000H~1FFFFH
68	CE0	Output	45pin external memory chip enable signal 40000H~7FFFFH
69	0A	Output	Address latch signal
70	DIS	Output	LCD driver control signal
71	HA	—	Not used.
72	RD	—	Not used.
73	KO9	Output	KEY strobe signal
〃	〃	〃	〃
82	KO0	Output	KEY strobe signal
83	R/D	Input	15pin RD signal (receive data)
84	T/D	Output	15pin SD signal (receive data)
85	E15	Input/Output	4pin SO signal (send data)
86	E14	Input/Output	4pin SI signal (receive data)
87	E13	Output	15pin RS signal (Send request)
88	E12	Input	15pin CS signal (Send enable)
89	E11	Input	15pin DR signal (Data set ready)
90	E10	Input	15pin CD signal (carrier detection)
91	E9	Output	Low battery control signal
92	E8	Output	IC card detection signal
93	E7	Input/Output	IC card detection signal and BNK2
94	E6	Output	BNK1
95	E5	Output	BNK0
96	E4	Input	RTC serial clock signal
97	E3	Input	RTC serial IN signal
98	E2	Output	RTC timer reset signal
99	E1	Output	RTC serial OUT signal
100	E0	Output	RTC control signal

5. RTC (SMC6115F)

(1) RTC (SMC6115F) terminal arrangement

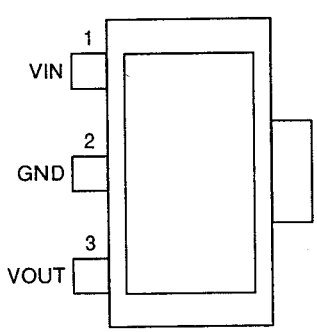


(2) RTC (SMC6115F) Terminal signal description

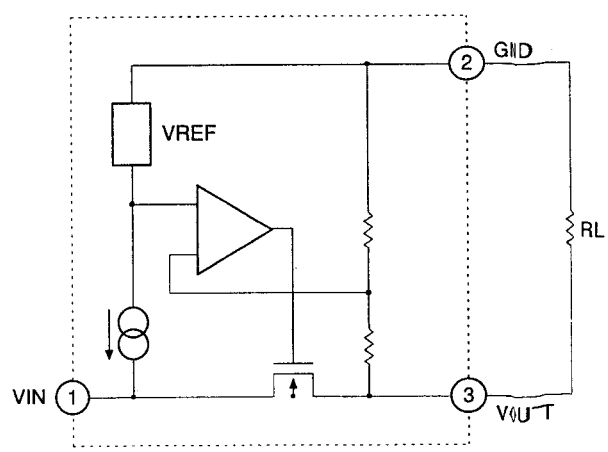
Terminal No.	Signal name	Input/Output	
16	VDD	–	[Power terminal] (0V)
19	VS1	–	[Power terminal, Booster/voltage falling power terminal VS1 (–1.5V), VS2 (–3.0V)] Across VDD ~ VS2: –3V power, Across VDD ~ VS3: Falling capacitor
18	VS2	–	
13	VS3	–	[Booster power terminal (–4.5V)] Capacitor is inserted between VDD and VS3.
17	VST	–	[Constant voltage output terminal] Output terminal of IC internal power.
14	C1	–	[Booster capacitor connection terminal] Capacitor is inserted between C1 and C2.
15	C2	–	
45	SR	Input	[System reset input] After oscillation frequency is stabilized, the system can be reset by high level input (6.25 msec or above).
48	OSC1	Input	[Oscillation terminal] Oscillation input/output terminal
47	OSC2	Output	
20 21	K1 K2	Input	[Data input terminal] Normally pulled down to LOW.
24 ~ 26	I/O1 ~ I/O3	Output	[Data output terminal] Output amplitude is between VDD and VS2.
38	ALARM	Output	[Alarm output] Alarm buzzer drive output terminal Output frequency is 4,096KHz, output amplitude is between VDD and VS2.

6. Regulator (SCI7711YDA)

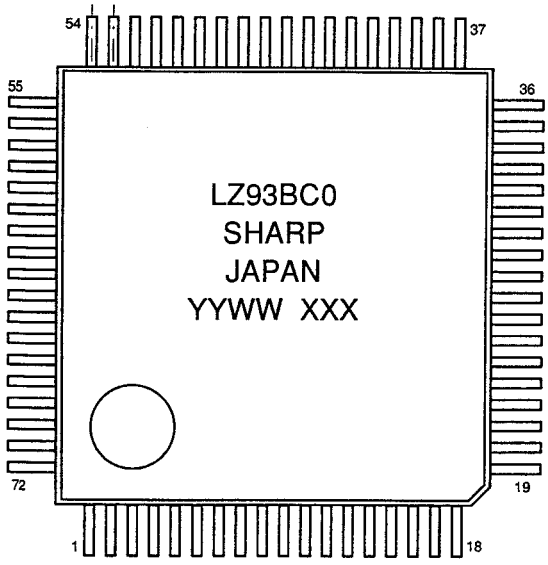
This is used to produce power for RTC (SMC6115F). (6V → 3V)



The SCI7711YDA is a voltage regulator developed with C-MOS SI gate process, and is composed of a high accuracy and low power consumption reference voltage supplier, a differential amplifier control transistor, and a voltage setting resistor. The output voltage is internally fixed. It is a negative output voltage regulator.
The package is mini power mold plastic package.



7. G.A (LZ93BCO)



Pin arrangement of LZ93BCO

Pin No.	I/O	
1	—	<N.C.>
2	TO	PA0
3	ICS	RESIN
4	O	RESOUT
5	O	RX
6	ICS	CX
7	—	<N.C.>
8	NA	ONKIN
9	—	GND
10	NA	BTCOV
11	O	CEO0-
12	O	CEO1-
13	—	<N.C.>
14	—	<N.C.>
15	O	CEO4-
16	NA	LBMAIN
17	—	<N.C.>
18	—	<N.C.>
19	—	<N.C.>
20	ICS	VDT
21	ASW	VBACK1
22	ASWR	LBP
23	ON	EG3
24	ON	EG2
25	ON	EG1
26	ON	EG0
27	O	LCDCNT
28	TO	LBOUT
29	O	ONOUT
30	TO	DISP2-
31	TO	DISP1-
32	—	<N.C.>
33	O	ROMA20
34	O	ROMA19
35	—	<N.C.>
36	—	<N.C.>

Pin No.	I/O	
37	—	<N.C.>
38	—	<N.C.>
39	O	ROMA18
40	O	ROMA17
41	NA	CD
42	I0	CE3
43	I0	CE1
44	NA	A17
45	—	VDD
46	—	GND
47	NA	A16
48	NA	A15
49	I0	CE6
50	—	<N.C.>
51	NA	A11
52	NA	A10
53	—	<N.C.>
54	—	<N.C.>
55	—	<N.C.>
56	NA	A9
57	NA	A8
58	I0	WR
59	I0	RD
60	NA	IB2
61	IO0	D3
62	IO0	D2
63	IO0	D1
64	IO0	D0
65	NA	LBBKUP
66	ANLS	RSCLK
67	ANLS	RSI
68	ANLS	RALA
69	—	<N.C.>
70	TO	PSCLK
71	—	<N.C.>
72	—	<N.C.>

I0 : Input pin (Input MOS level)
ICS : Input pin (CMOS Schmidt Input)
IO0 : Input/Output pin (Input CMOS level)
TO : Output pin
O : Output pin
ON : Output pin
NA : Input pin (Input MOS level)
ANLS : Input pin
ASW : Analog switch pin
ASWR: Analog switch pin

8. LCD DRIVER (HD66108TA)

LCD drivers HD66108TA

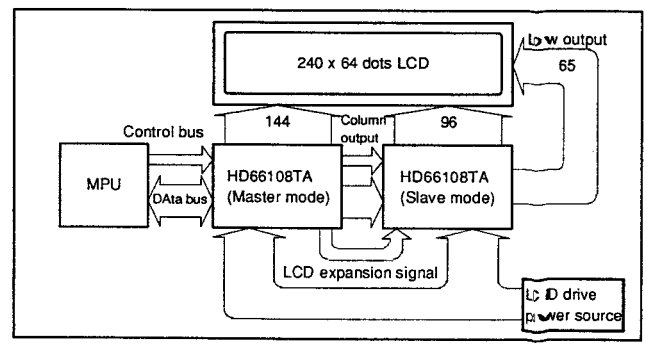
The HD66108TA is a dot matrix graphic LCD LSI for bit map display. The dot matrix graphic display is controlled and driven by the 8-bit microcomputer.
Since it includes all the necessary functions for bit map system dot matrix LCD in a single chip, the HD661008TA allows to realize the bit map system dot matrix graphic LCD system with a small chip composition.
The bit map system where one bit data of the display RAM corresponds to one dot of ON/OFF of display element allows highly free display. One chip can compose 100 x 65 dots graphic display system. Use of two or more chips can expand the display capability.
The HD66108TA employs the CMOS process and the TAB package. When combined with a CMOS microprocessor, it realizes a compact, pocketable battery-driven graphic display with low power consumption of LCD.

Features

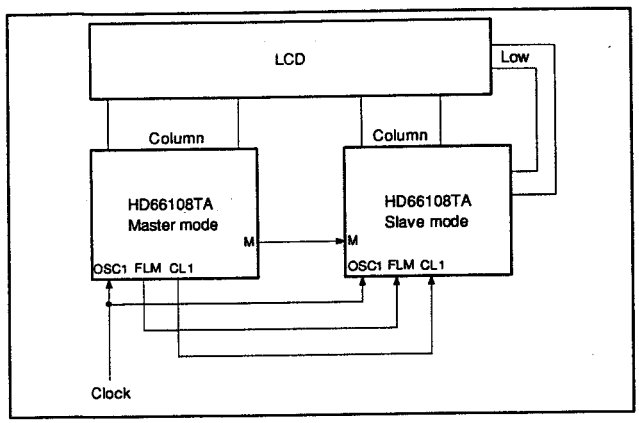
- LCD drive circuit composition is selected among the following four:

Select content	Number of column outputs	Number of row outputs
Column output only	165	0
Row right/left outputs	100	65 (Right: 33; Left: 32)
Row right output 1	100	65
Row right output 2	132	33

- Display duty
  Selected among the 7 kinds: 1/32, 1/34, 1/36, 1/48, 1/50, 1/64, 1/66
  * Max. row number is 65.
- A bit map system display RAM is built in.
  10K bit (165 x 65 bit)
- Display memory by character font
  Data line width selection: 8 bit or 6 bit
- Standby operation by program designation
- Display expansion by multi-chip operation
- Built-in CR oscillator
- 80 system CPU interface
  ϕ = 4MHz
- Operating voltage range: 2.7V ~ 6.0V
- LCD drive voltage: 6.0V ~ 15.0V
- Low power consumption: Max. 400µA
  (External clock: fOSC = 500KHz)
- Package: 208-pin TAB (Tape Automated Bonding)

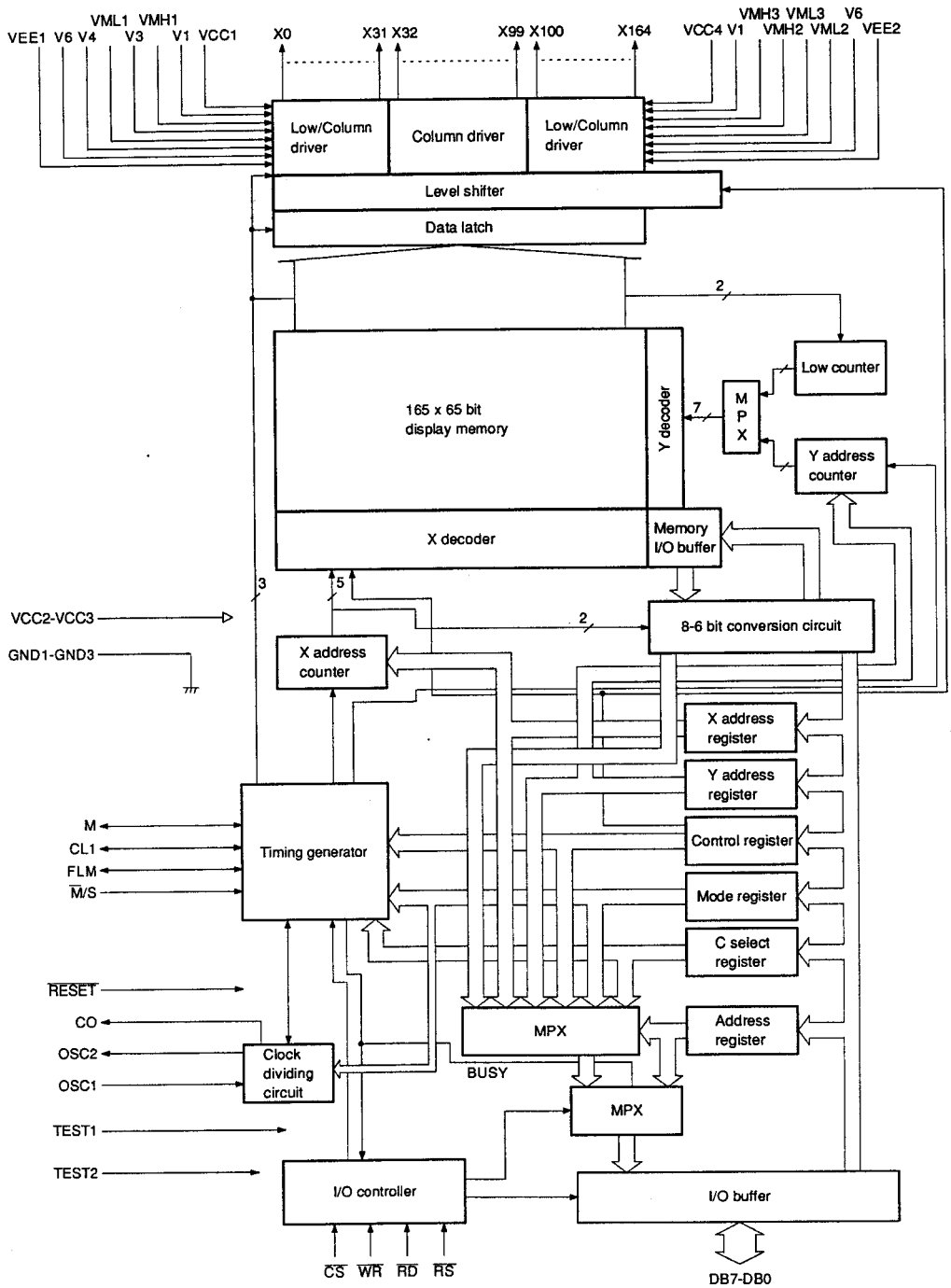


Basic system configuration



Example of use of 2 chips of HD66108TA

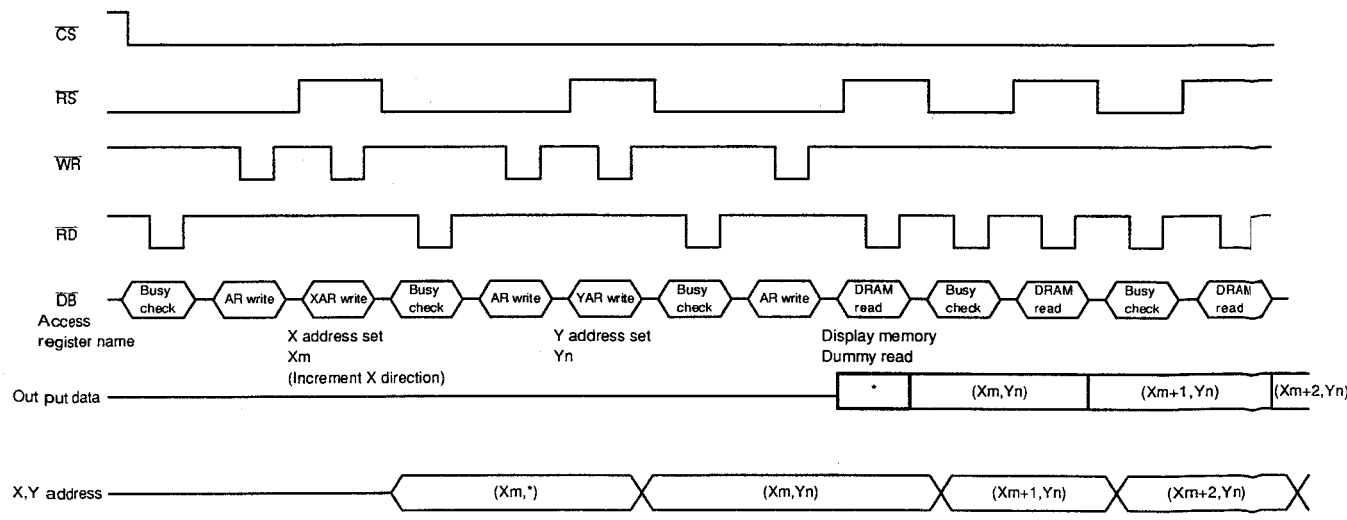
Internal block diagram



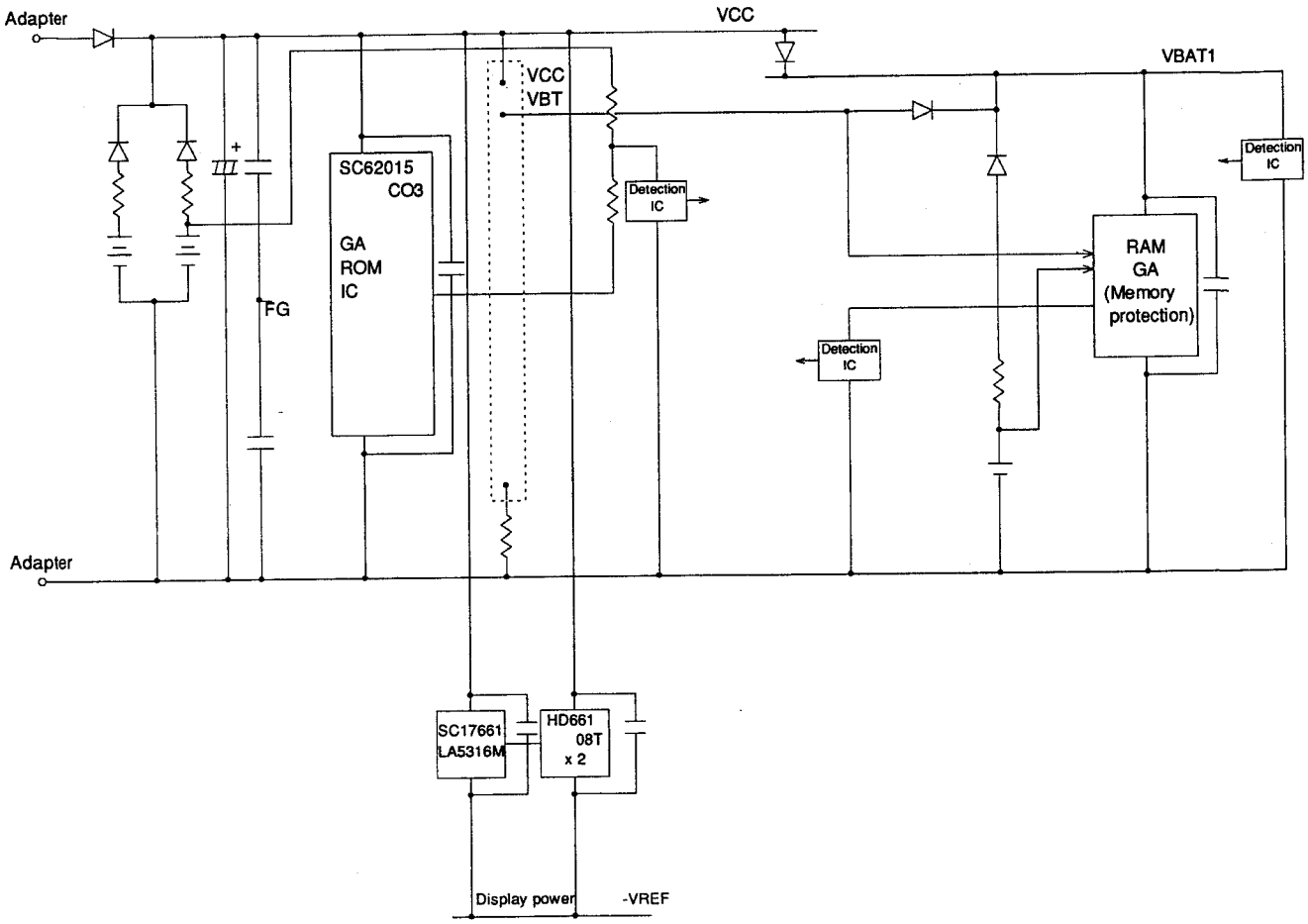
Pin description

Division	Pin No.	Code	Pin name	I/O	Number of pins	Function
ower source	8, 9 35, 36	Vcc1, Vcc2 Vcc3, Vcc4	Vcc	—	4	Connect to Vcc. P
	12 ~ 14	GND1 ~ GND3	Ground	—	3	GND
	1, 43	VEE1, VEE2	VEE	—	2	To supply power to the LCD drive circuit. Normally at the same level as V6.
	2, 7 37, 42 4, 5 6, 39, 38 3, 40, 41	V6L/VIL VIR/V6R V4, V3 VMH1 ~ VMH3 VML1 ~ VML3	V1 ~ V6	—	12	Input the LCD drive voltage.
PU interface	23	$\overline{CS}$	Chip Select	I	1	Chip select signal C Access to the internal register is allowed only during LOW period.
	25	$\overline{WR}$	Write enable	I	1	Write enable signal
	26	$\overline{RD}$	Read enable	I	1	Read enable signal
	24	RS	Register Select	I	1	Input pin for register select.
	27 ~ 34	DB0 ~ DB7	Data Bus	I/O	8	Data I/O common pin.
CD drive output	44 ~ 208	X0 ~ X164	LCD output	O	165	LCD drive output pin L X0 ~ X31 and X100 ~ X164 pins are Low/Column common pins, and are made to be low drive output pins by the program. X32 ~ X99 are used only for column drive output.
CD interface	21	FLM	First Line Marker	I/O	1	First line marker output pin in the master mode. FLM signal input pin in the slave mode.
	0	CLI	Clock 1	I/O	1	Display data latch clock output pin in the master mode. CLI signal pin in the slave mode.
	2	M	M output/input	I/O	1	LCD drive AC conversion signal output pin in the master mode. M signal input pin in the slave mode.
ontrol signal	10	CSC1	Oscillation 1	I	1	Clock input. C
	11	OSC2	Oscillation 2	O	1	CR oscillation output pin.
	9	CO	Clock Output	O	1	Clock output pin. The clock is in the same phase as OSC1.Connect to OSC1 of the slave chip.
	8	M/S	Master Slave	I	1	Set the master chip to LOW, and set the slave chip to HIGH. After supply the power, do not change this setting.
	7	$\overline{RESET}$	Reset	I	1	By setting $\overline{RESET}$ signal to LOW, initial setting can be made.
	5 ~ 16	TEST1 TEST2	TEST signal 1, 2	I	2	Test signal pin. Normally fixed to LOW.

Display memory read procedure



9. Power circuit



10. Low battery detection circuit (3-stage detection)

Fig. 1 shows the detection circuit. When the fatal level (compulsory OFF level) is detected, E9 is made HIGH and VCC is detected by the detector. When the caution level is detected, E9 is made LOW and the divided voltage of r1 and r2 is detected.

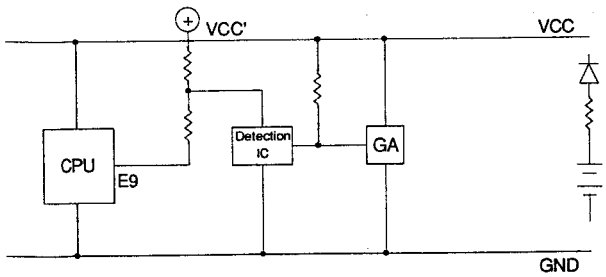


Fig. 1

11. Backup battery detection circuit

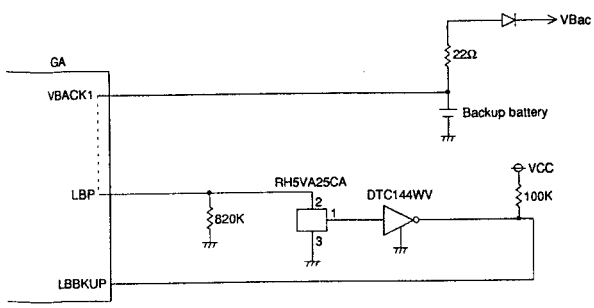
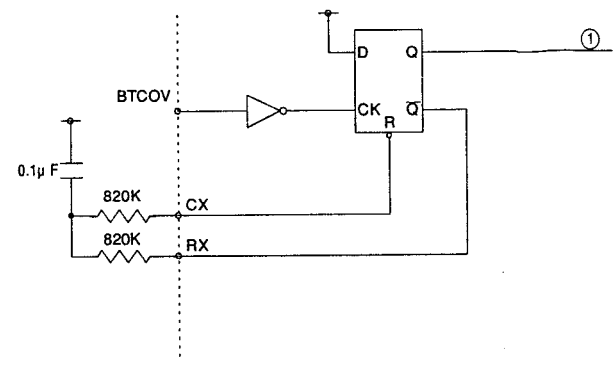


Fig. 2

Fig. 2 shows the detection circuit.
The backup detection of the IC card and the body is performed only when the power is turned on with the ON key.

12. CPU reset circuit



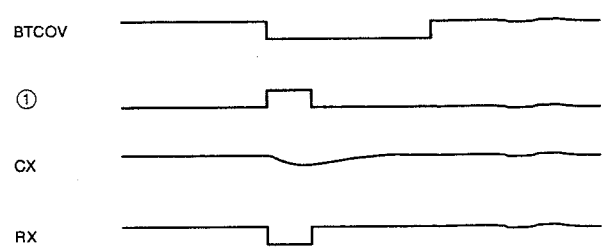


Fig. 3 Reset circuit

Fig. 3 shows the reset circuit and the time sequence.

13. Servicing circuit

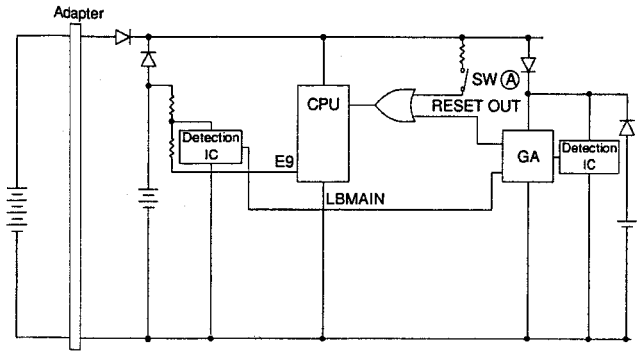


Fig. 4 Servicing circuit

- When VCC voltage is restored from the fatal level by connecting the adaptor, the detector keeps detecting LOW output of the operation battery. ON/OFF reset key input is inhibited by the GA memory protection circuit, and the system is kept at OFF state.
- The combination of the special RESET key [A] and "S"+"ON" key can perform special rising up to supply one pulse input of RESET signal to the CPU without passing through the gate array protection circuit.
- The CPU judges the combination of key ① and rising is performed without battery voltage detection.
- This allows a serviceman to perform special rising of the set whose operation voltage is below the fatal level by inserting a 2-pin adaptor power to confirm the memory display and then replace the battery. (Secret function)

14. Note for battery replacement

This model uses four lithium batteries (CR-2032) for normal operation and one (CR-2032) for memory backup.
The clock for home time and world time is operated on the batteries for normal operation.

Precautions

- Press [OFF] to turn off the power before replacing batteries.
- Do not remove all batteries at the same time. If removed all at once, the memory contents will be lost.
- Before replacement, make a backup of all important data.
- Always replace all 4 operating batteries at the same time with new CR2032 batteries.
- The original batteries were factory-installed at the time of shipment and might be depleted before satisfying the operating time indicated in the specifications.

Caution

- Keep the batteries out of the reach of children.
- When batteries become weak, remove them from the Organizer immediately. If depleted batteries are left in the Organizer for any length of time, they might leak and cause corrosion inside the Organizer.
- Do not dispose of batteries by fire as they may explode.

15. When to Replace Batteries for Normal Operation

When BATT appears on the display and the display is too dim to read, the operating batteries are depleted.
Press [OFF] to turn the power off and then turn the power back on. If the following message appears when the power is turned on, replace all 4 operating batteries immediately.

< ATTENTION >
Replace the OPERATING batteries
Before replacement read OPERATION MANUAL
BATT

16. Replacing the operating batteries

1. Turn the Organizer off.
2. Remove the 3 screws on the back of the Organizer with a Phillips screwdriver and remove the rear cover (Fig. 5).
3. Slide the battery cover while depressing the battery cover lock (Fig, 6).
4. Remove the battery cover.
5. Remove the old batteries using a ball-point pen (Fig. 7).

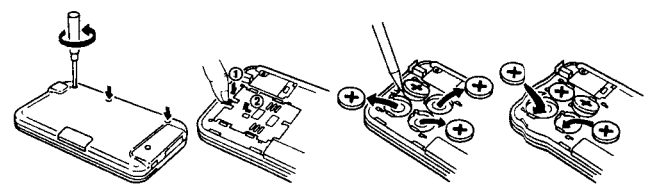


Fig. 5 Fig.6 Fig. 7 Fig. 8

6. Insert the 4 new batteries with the positive side of each battery facing up (Fig. 8).
7. Replace the battery cover and slide it back into place. A click sounds when it is locked (Fig. 9).
8. Reattach the rear cover with the 3 screws (Fig. 10).
9. Press [ON] to turn the power on.
10. Set the HOME city, and the date and time for the HOME clock

If the power does not come on when you press [ON] :

- Make sure the battery cover is installed properly.
- Carefully repeat the above battery replacement procedure.

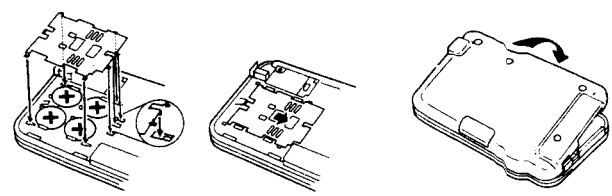


Fig. 9 Fig. 10

17. Memory backup battery

The memory backup battery in your Organizer has an effective life of about 5 years under normal operating conditions. Note that temperature extremes can shorten the battery life.
Replace the memory backup battery every 5 years, or when the following message appears.

<< ATTENTION >>
Replace the MEMORY BACKUP battery
Before replacement read OPERATION MANUAL

When replacing the memory backup battery, make sure that the operating batteries are not depleted. If the operating bateries are depleted, replace them before replacing the memory backup battery. Failure to do so may result in complete loss of data.

18. Replacing the memory backup battery

1. Turn the Organizer off.
2. Remove the 3 screws on the back of the Organizer with a Phillips screwdriver and remove the rear cover.
3. Carefully peel the sheet off the battery cover. (Fig. 11)
4. Remove the screw on the battery cover using a Phillips screwdriver. (Fig. 12)
5. Remove the battery cover.
6. Remove the old battery using a ball-point pen.
7. Insert the new battery with its positive side facing up.
8. Replace the battery cover and secure with the screw. (Fig. 13)
9. Reattach the previously removed sheet.
10. Reattach the rear cover with the 3 screws.
11. Press [ON] to turn the power on.

- If the power does not come on when you press [ON], carefully repeat the above battery replacement procedure.

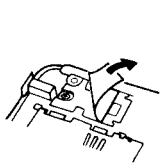


Fig. 11

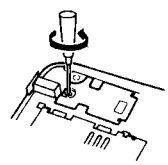
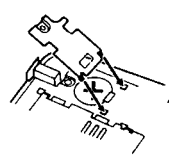


Fig. 12



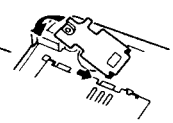


Fig. 13

19. Data comunication in servicing

19-1. Organizer to Organizer

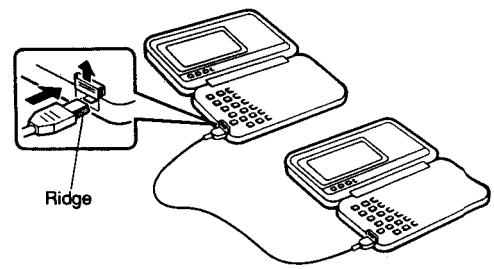
Data can be transferred directly to or from another Sharp Organizer by connecting them with the optional CE-300L or CE-200L cable.
Compatible models include the OZ/IQ-8000, OZ/IQ-7000, YO-600, ZQ-6000, ZQ-6100M, ZQ-5000 and ZQ-2000 series. Data from the SCHEDULE, TO DO TEL, BUSINESS CARD, OUTLINE and MEMO modes can be transferred.

However there are a few restrictions when exchanging with a different model:

- The mode from which entries are to be transferred must be supported by the receiving Organizer.
- TEL and BUSINESS CARD free filed names cannot be transferred.
- As the line lengths are different, the layout of data transferrd between this Organizer and the OZ/IQ-7000, ZQ-5000 or ZQ-2000 series Organizer will change. Edit them afterwards to format to your liking.

Preparing for transfer

1. Turn both units off.
2. Lift up the option port cover.
3. Plug the interface cable into the 4-pin option ports of each unit. Note the ridge on one side of the plug to ensure it is inserted the right way.



- Do not plug the interface cable in the wrong way. Valuable data stored in your Organizer may be lost.
- Disconnect the interface cable as soon sa you finish transfer to conserve battery power.

Transferring and verifying data

Single entries or whole files from the SCHEDULE, TO DO, TEL, BUSINESS CARD, OUTLINE or MEMO modes may be transferred and then verified to check the accuracy of the transfer.

1. Set both Organizers to the same mode.
2. Transferring single entries:
   Recall the entry to transfer on the sending unit.
   Transferring whole files:
   Press [C-CE] to go to the initial entry display for the mode on both units. In the SCHEDULE mode, this is the START TIME entry prompt for the OZ/IQ-8000 and YO-600, ZQ-6000 series Organizers and the data entry display for the OZ-7000, ZQ-5000 and ZQ-2000 series Organizers.
3. Press [2nd] [OPTION] and then select UNIT TO UNIT on both units.
4. Select RECEIVE (or VERIFY) for the receiving unit and SEND for the sending unit.

Before transferring whole files, the following display will appear on the receiving unit.

Press [Y] to start transfer clearing all previously stored entries in the file.

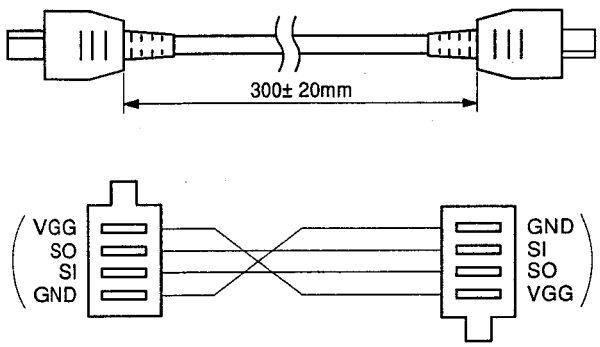
<UNIT TO UNIT>
FILE CLEAR
OK ? Y/N

- Press [ON] to interrupt transfer. All other keys are ignored.
- Receiving and verifying are done in the same manner. It is wise to verify data after transfer.

- To transfer whole files or secret entries, the Secret function must be off on both units.
- If you get the message I/O DEVICE ERROR, check the interface cable is connected and both units are turned on.
- If the sending and receiving units are not set to the same mode, DATA ERROR will occur.
- The directories TEL 1, TEL 2 and TEL 3 are interchangeable, i.e., TEL 1 listings can be transferred to TEL 3 etc.
- ERROR displayed after verifying means the data on the two units does not match.
- If the TO DO mode categories exceed 32 after a single entry transfer, MEMORY FULL will appear.

19-2. Necessary tools

- Data communication cable (Part code: QCNW-1349CCZZ)



20. Advancement check

Use the senser of the advancement meter for quartz clock to check-that advancement is as follows:

Advancement adjustment

Temperature (°C)	Daily lag (S)
15	−0.3 ~ −0.2
16	−0.28 ~ −0.12
17	−0.26 ~ −0.04
18	−0.24 ~ +0.04
19	−0.22 ~ +0.12
20 ~ 30	±0.2

21. Diagnostic functions

1. Entering the diag mode. (Note: Be careful to data protection.)

Press [ON] + [D] + RESET, and release RESET.

2. Menu screen

<DIAG>

[1] RAM DATA SET
[2] MAIN PWB
[3] PRODUCTION
[4] KEY
[5] LOW BATT
[6] AGING (HALT)
[7] RAM DATA CHECK

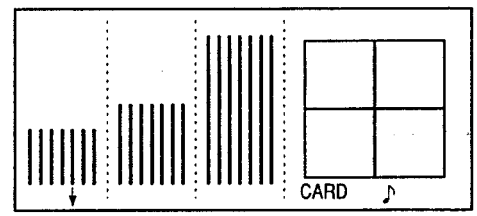
When servicing, use [3], [4], and [5].

3. Press [3] key to select PRODUCTION CHECK. (DISPLAY CHECK)

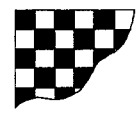
① Check that pattern A is lighted properly.
② Press [ENTER] key and check that pattern B is properly lighted.
③ Press [ENTER] key and check that pattern C is properly lighted.
④ Press [ENTER] key and check that pattern D is properly lighted.
⑤ Press [ENTER] key and check that pattern E is properly lighted.
⑥ Press [ENTER] key and check that pattern F is properly lighted.

(DISPLAY CHECK PATTERN)

Pattern A

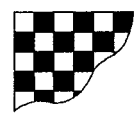


Pattern B



✳↑← 2nd CARD ♪

Pattern C

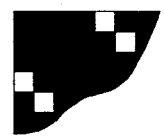


↓→ EDIT BATT [S] ◁ CAPS

Pattern D

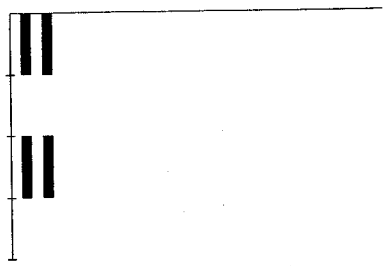
✳↑← 2nd CARD ♪

Pattern E



↓→ EDIT BATT [S] ◁ CAPS

Pattern F

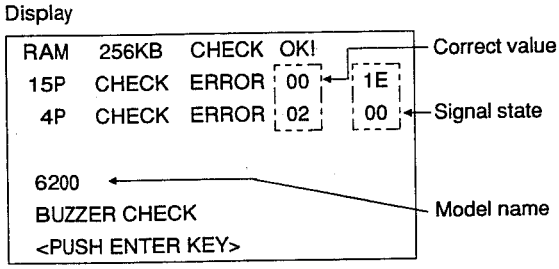


✳↑ ← 2nd CARD♪

(RAM CHECK and BUZZER CHECK)

⑦ After checking pattern F with the display check, press [ENTER] key.

Display



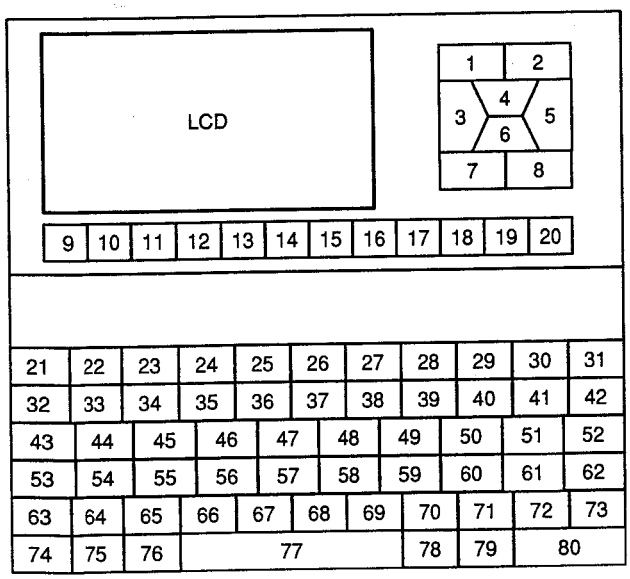
Note: For 15-pin, 4-pin, and 45-pin check, use the IC card and the cable and perform communication check.

⑧ Press [ENTER] key to return to the menu screen.

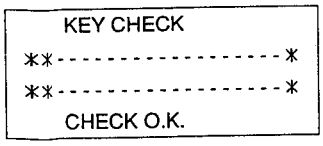
(KEY CHECK)

⑨ Press [4] key to select KEY CHECK.

⑩ Press the keys in the sequence shown in the key input check sequence sheet.



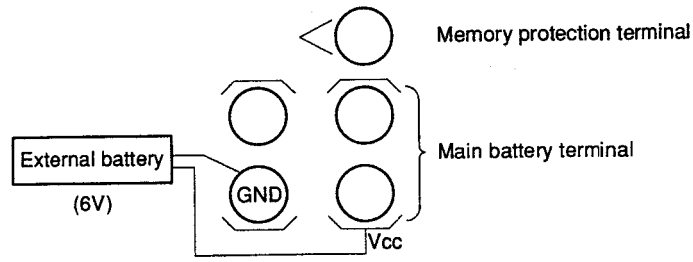
⑪ Press [ENTER] key and check that the screen is as shown below:



⑫ Press [ENTER] key to return to the menu screen.

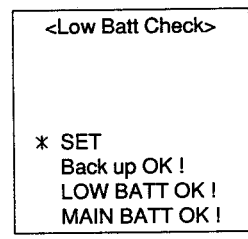
(LOW BATT CHECK)

⑬ Remove the rear cover of the set and the battery cover, and set the slide switch to the center. (Remove the main and the backup batteries.)



⑭ Supply an external power (6V) to the set with the main battery removed.

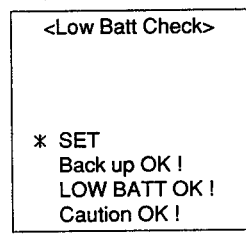
⑮ Remove the main body backup battery.



← Detection voltage: 2.5V ± 0.1V
← Operating voltage: 6.0 ~ 5.2V

⑯ Under the state of ⑮, drop the external power voltage to make the low battery detection check of the main body operation voltage.

Drop the external power voltage to 5.19 ~ 4.82V.



← Detected between 5.19V and 4.82V.

⑰ Drop the external power voltage further more.

Drop the external power voltage to 4.7 ~ 4.4V, and check that the display is turned off.

⑱ Install the main battery to the set.

⑲ Attach the battery cover.

⑳ Attach the rear cover.

㉑ Perform the reset operation. (Check end)

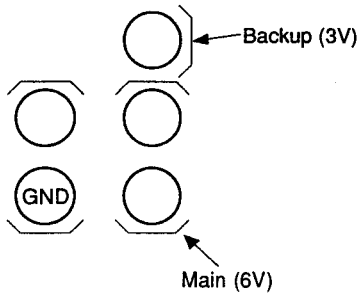
22. Current consumption check

① OFF current measurement (main body)
Current consumption under OFF state must be max. 21μA

② Current measurement during display (main body)
The current consumption during display must be max. 1.84mA.

③ Backup current measurement
The backup current consumption must be max. 16μA

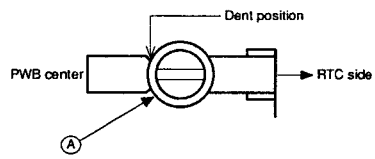
Note: External power supply



23. Note for servicing

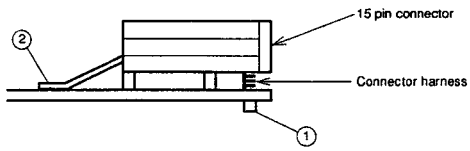
PWB unit treatment

1. Trimmer soldering



Be careful to keep section A away from solder and flux.

2. 15 pin connector soldering



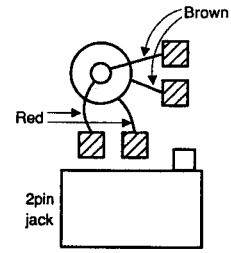
a) Solder section ① to the sub PWB and fix the 15 pin connector.
(The 15 pin connector must be in close contact with the PWB.)

b) Solder section ②. (Carefully avoid solder touch and incomplete soldering.)
(The 15 pin connector must be in close contact with the PWB.)

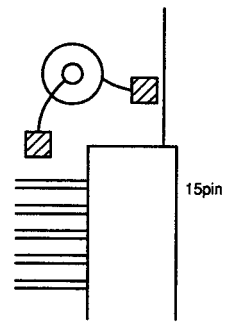
* Protect the adjacent chip components from soldering flux.)

3. Coil attachment

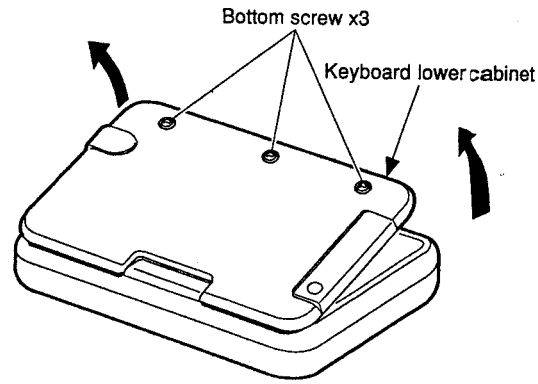
① Solder the SBO coil.



② Solder the SB coil.



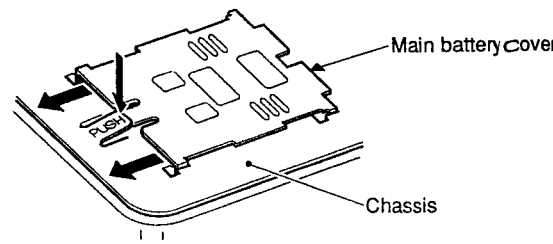
4. Remove the bottom cabinet in the key side.



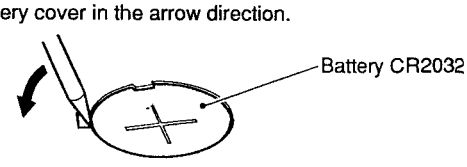
* The bottom screw is made in the drop-protection shape and dose not fall from the bottom cabinet.

* Remove the keyboard lower cabinet in the arrow direction.

5. Remove the main batteries.

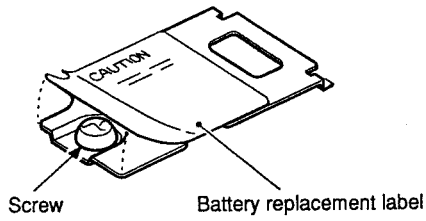


* While pressing the push section of the chassis, slide the main battery cover in the arrow direction.

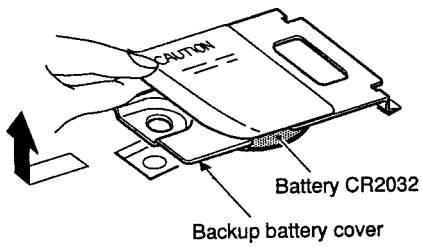


* Insert a pen or such thing into the chassis hole and remove the batteries (4 pcs.)

6. Remove the backup battery.

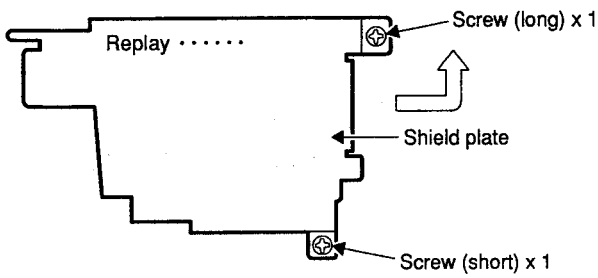


* Turn up the battery replacement label and remove the screw. (Do not remove the label, but just turn it up halfway.)
  Hold the battery replacement label and pull it in the arrow direction, then remove the backup battery cover from the chassis.

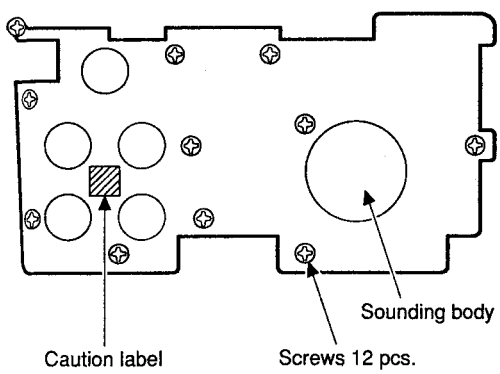


* Insert a pen or such thing into the chassis hole and remove the battery.

7. Remove the shield plate.

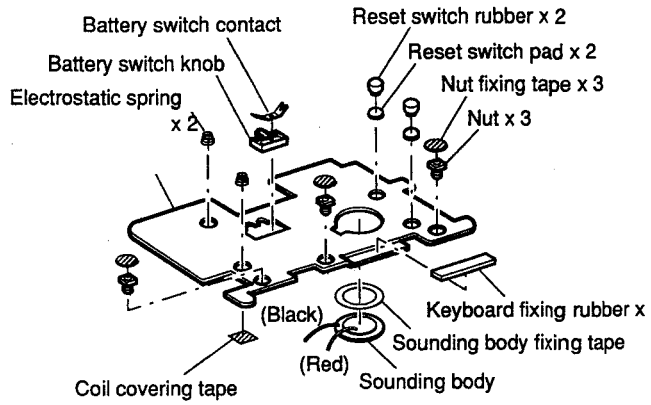


8. Remove the chassis.

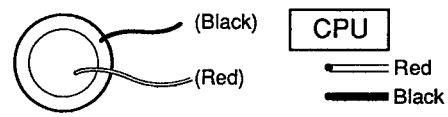


* Remove the caution label and remove all twelve screws. (There are some screws under the caution label.)
* Note: The lead wire of the sounding body is soldered to the PWB. Be careful not to pull off the lead wire.

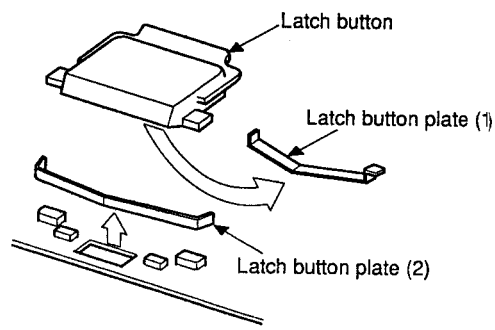
9. Remove the parts from the chassis.



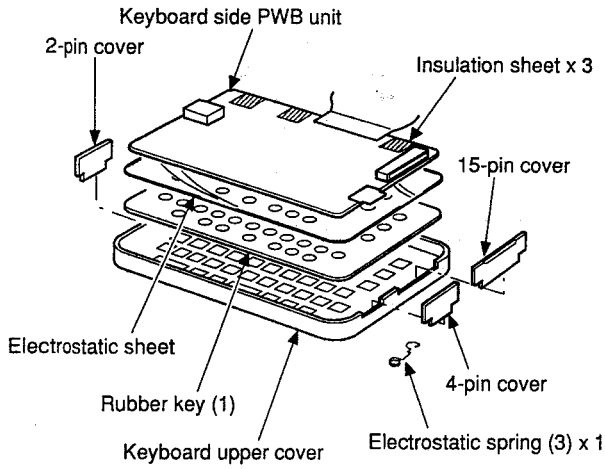
* The keyboard fixing rubber is fixed to the chassis.
* The battery switch contact is caulked to the battery switch knob.
* The sharp edge of the electrostatic spring should be in the PWB side.
* Buzzer lead wire



10. Remove the latch button.

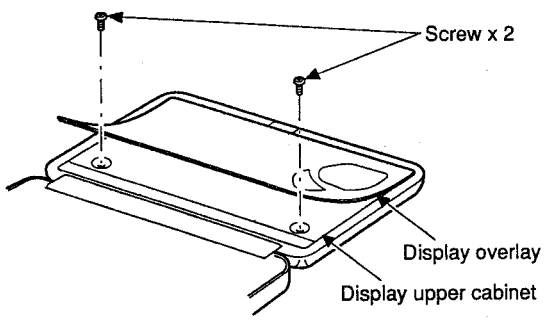


11. Remove the parts from the keyboard upper cabinet.

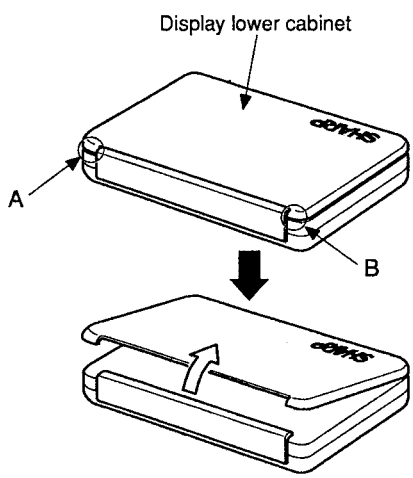


* The connector cover is held by the projection of the upper cabinet to be retained. When removing the connector cover, be careful not to break the projection of the upper cabinet.
* Electrostatic spring (3) is attached to the upper cabinet.

12. Remove the display lower cabinet.

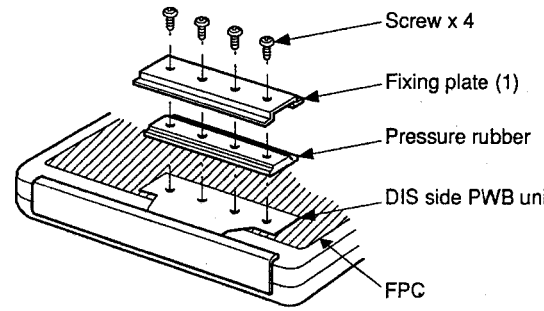


* The display overlay is attached to the display upper cabinet with dual-surface tape.

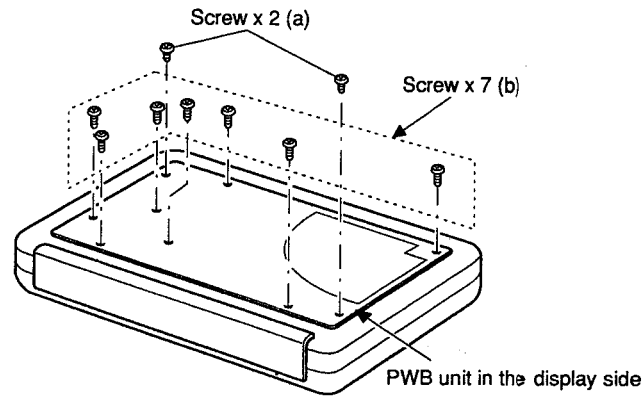


* Put your nails at sections A and B (clearance between the display lower cabinet and the display upper cabinet) and remove the cabinet in the arrow direction.

13. Remove the FPC pressure section

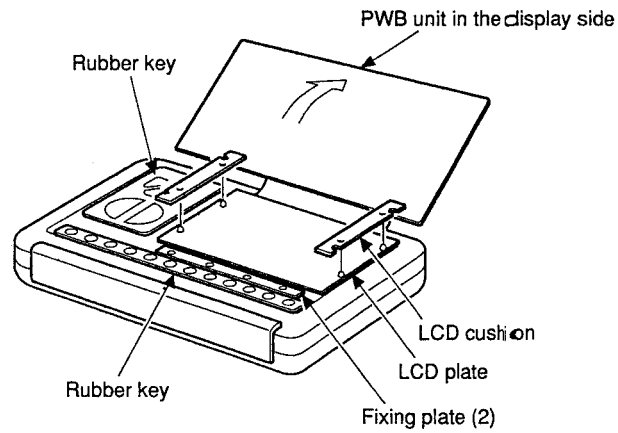


14. Remove the PWB unit in the display side.



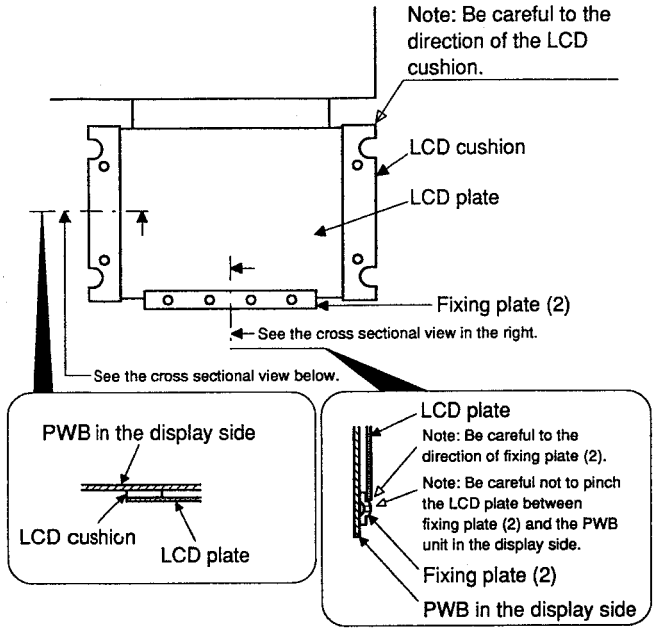
* Screw (a) is shorter than screw (b). If screw (b) is wrongly used in the place of screw (a), the display upper cabinet will be deformed. Be careful not to mistake.

15. Remove the display upper cabinet parts.

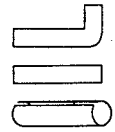


* The LCD plate is attached to the LCD with dual-surface tape.

* Note for assembly


Note: Be careful to the direction of the LCD cushion.
LCD cushion
LCD plate
Fixing plate (2)
See the cross sectional view in the right.
See the cross sectional view below.
PWB in the display side
LCD cushion
LCD plate
LCD plate
Note: Be careful to the direction of fixing plate (2).
Note: Be careful not to pinch the LCD plate between fixing plate (2) and the PWB unit in the display side.
Fixing plate (2)
PWB in the display side

* There are three kinds of hinge pins:

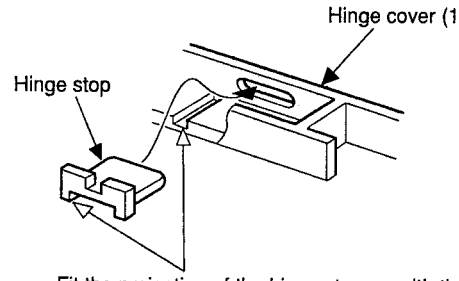


(L shape) x 2

(I shape) x 1

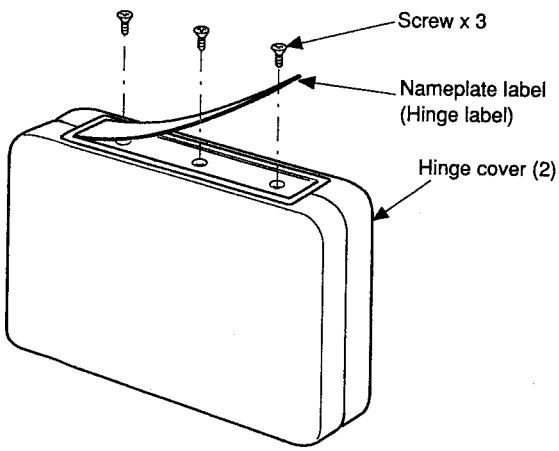
(Split pin) x 1

* Be careful to the direction of the hinge stop.



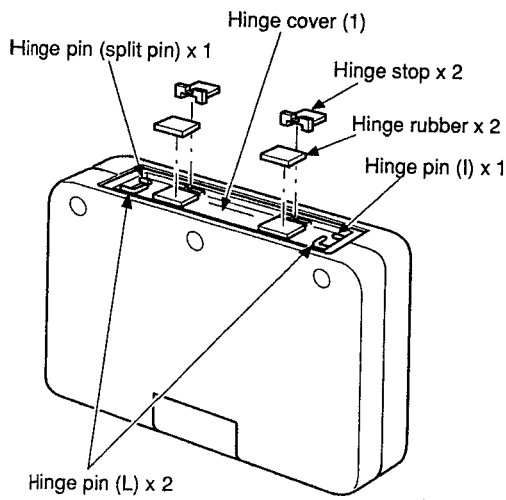
Fit the projection of the hinge stopper with the groove in hinge cover (1).

16. Remove the hinge cover.

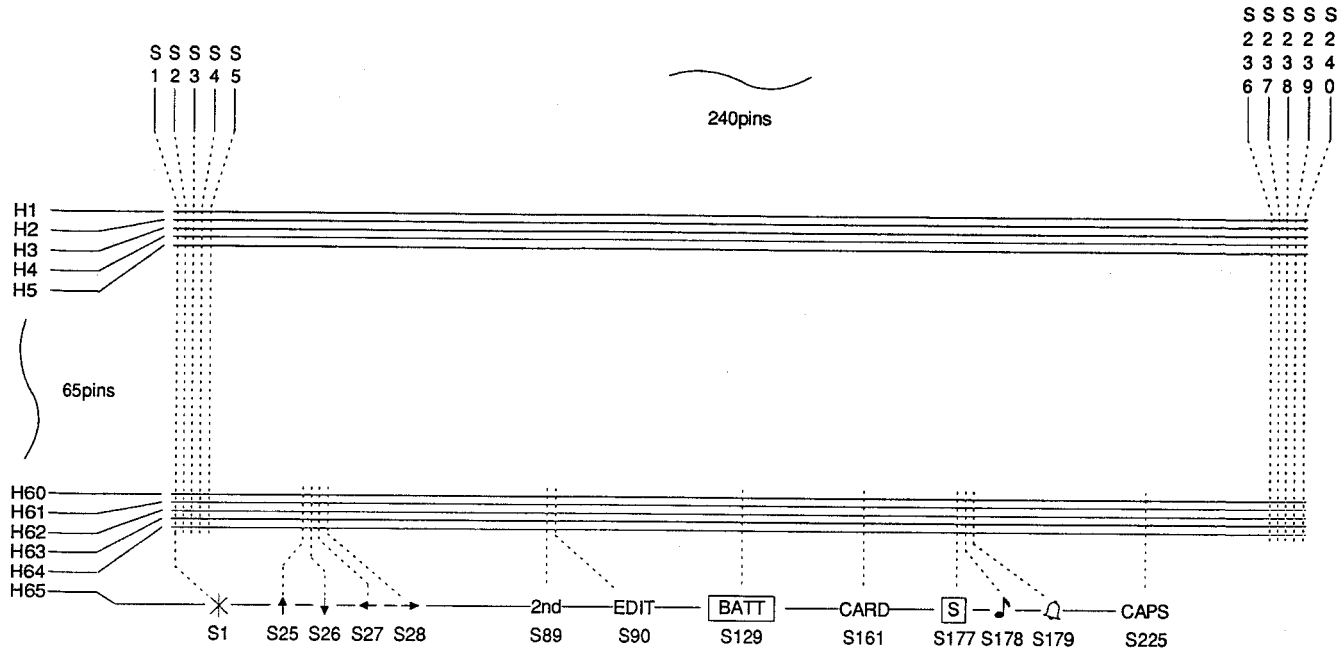


* The nameplate label is pasted to hinge cover (2).

17. Remove the hinge section parts.



24. LCD connection diagram

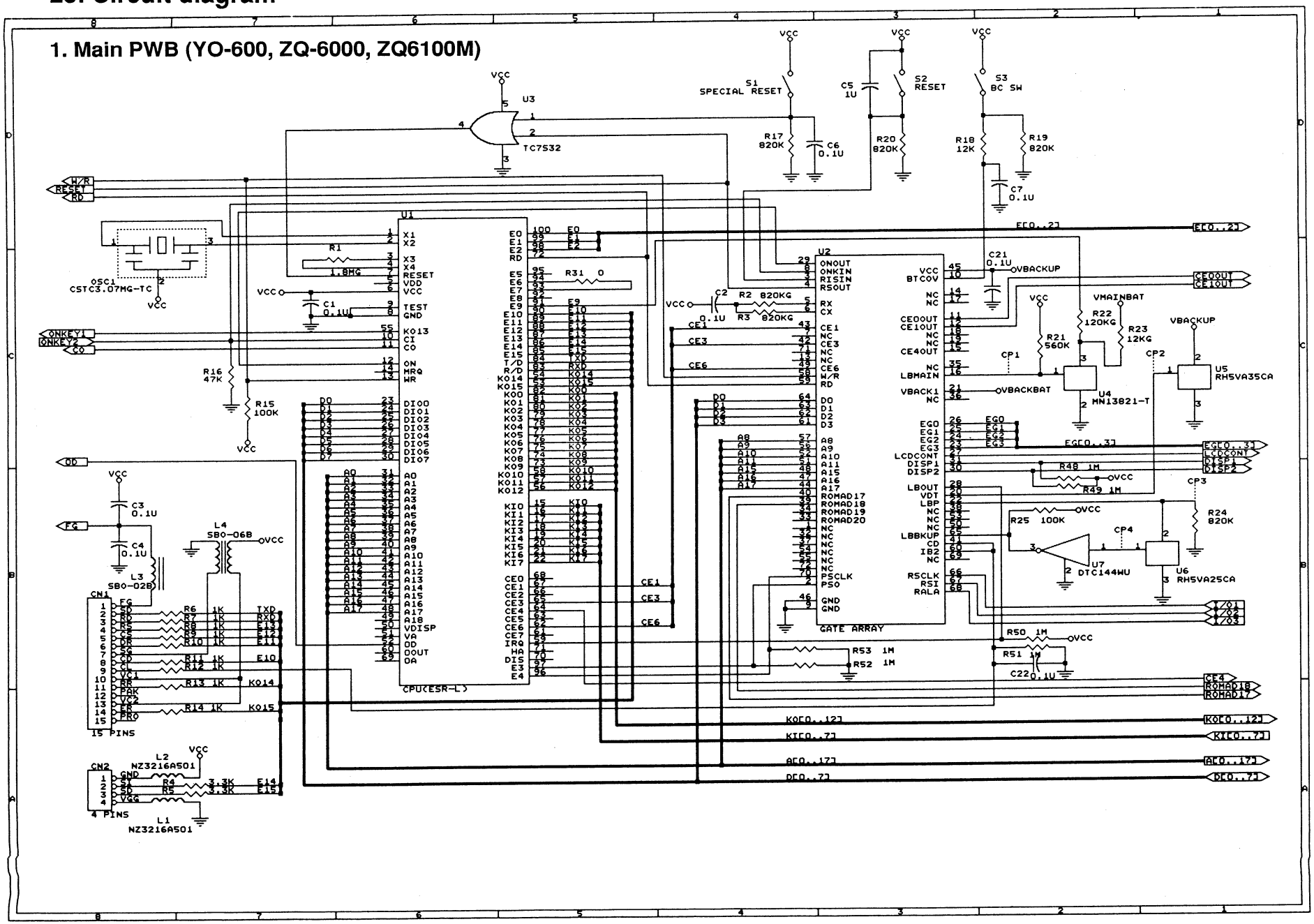


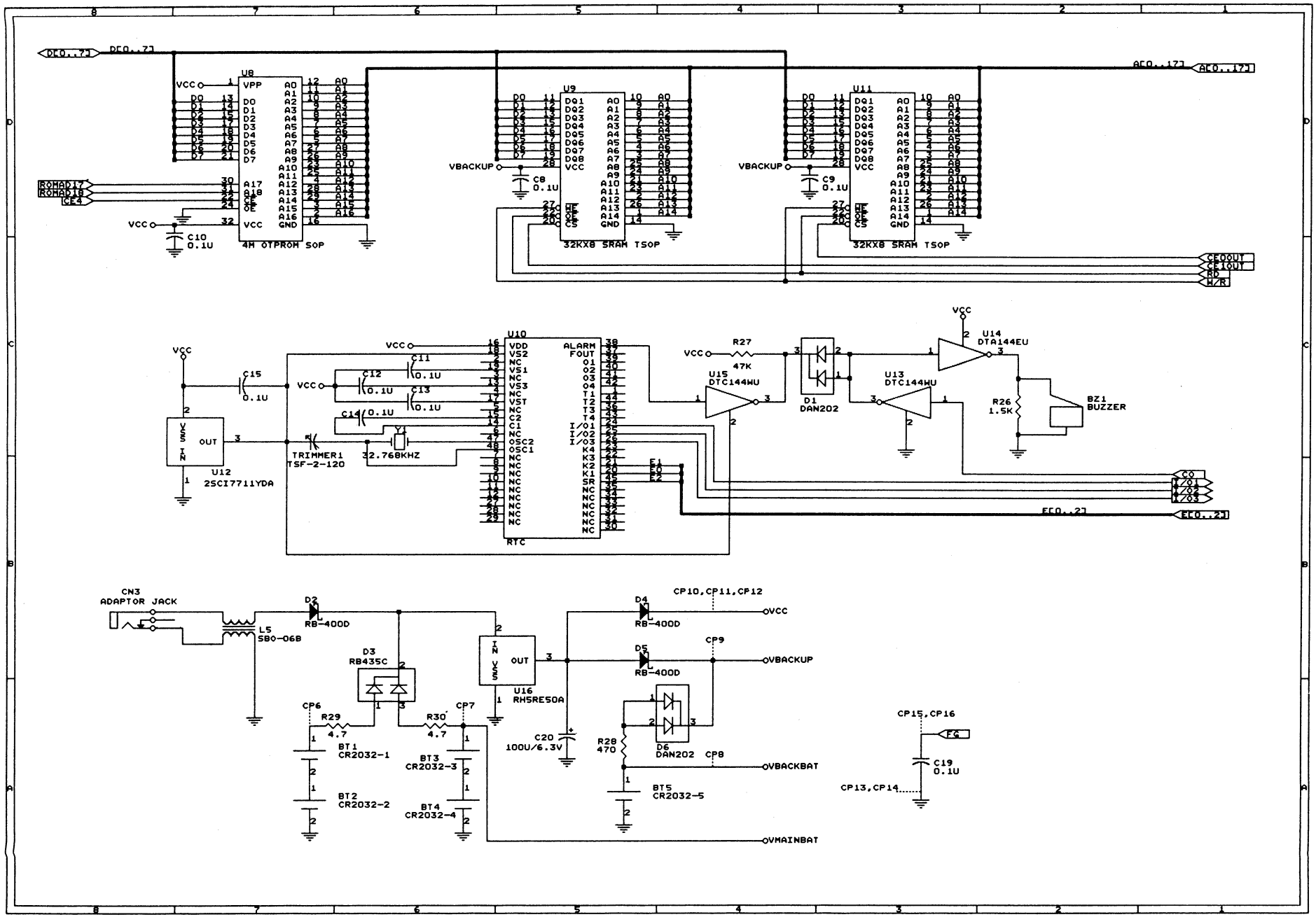
Symbol connection

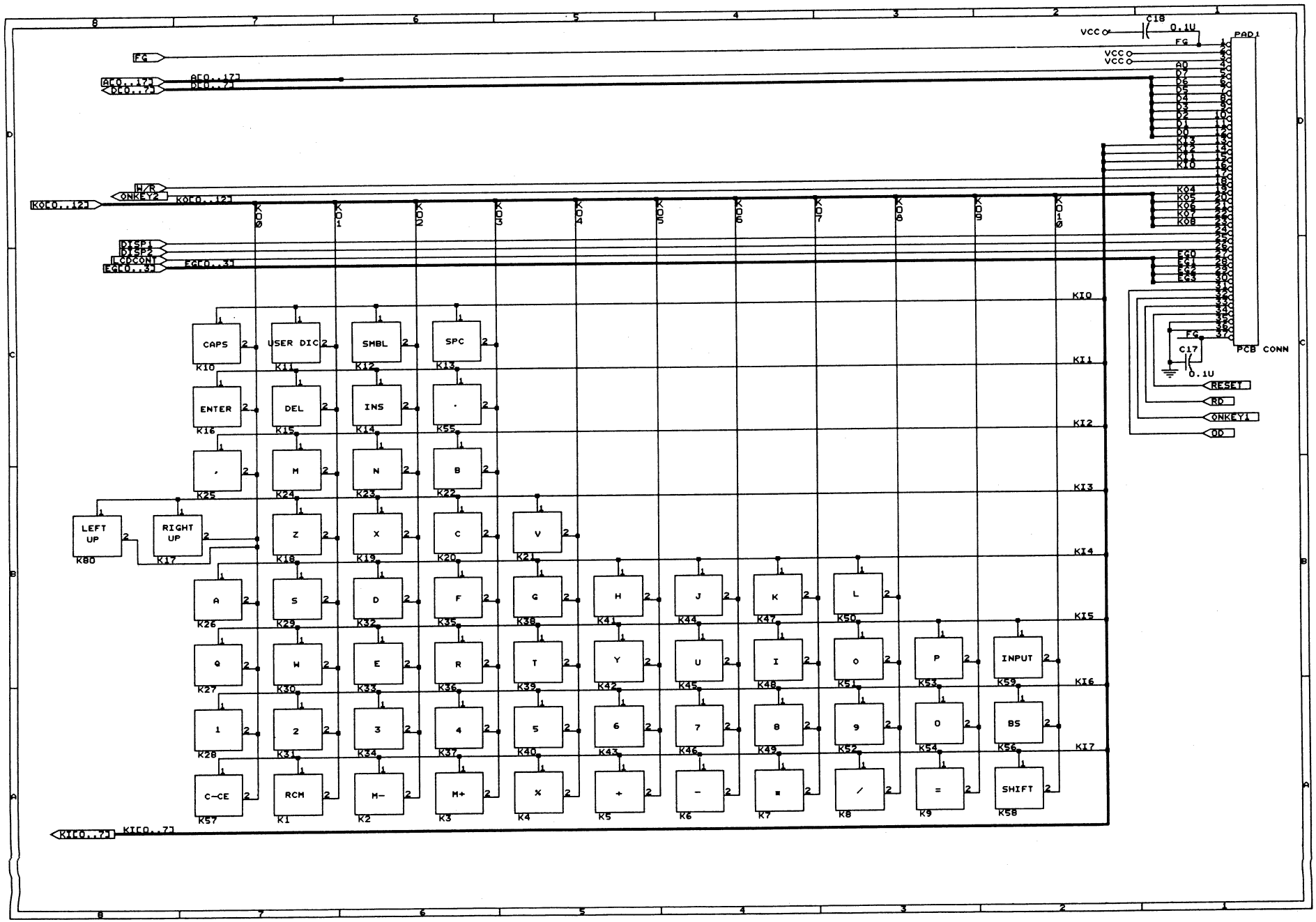
✳	↑	↓	←	→	2nd	EDIT	BATT	CARD	S	♪	🔔	CAPS
H65 S1	H65 S25	H65 S26	H65 S27	H65 S28	H65 S89	H65 S90	H65 S129	H65 S161	H65 S177	H65 S178	H65 S179	H65 S225

25. Circuit diagram

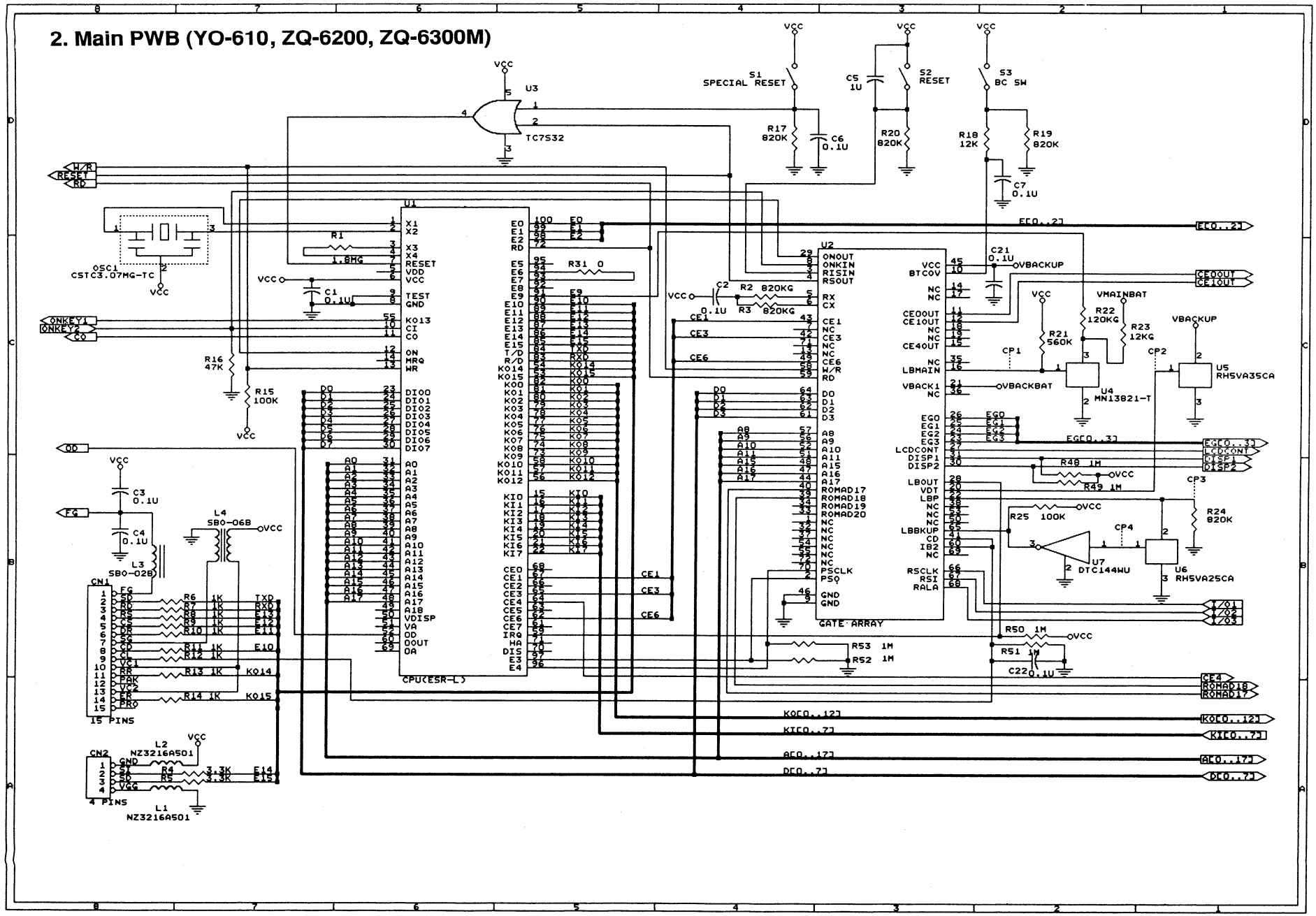
1. Main PWB (YO-600, ZQ-6000, ZQ6100M)

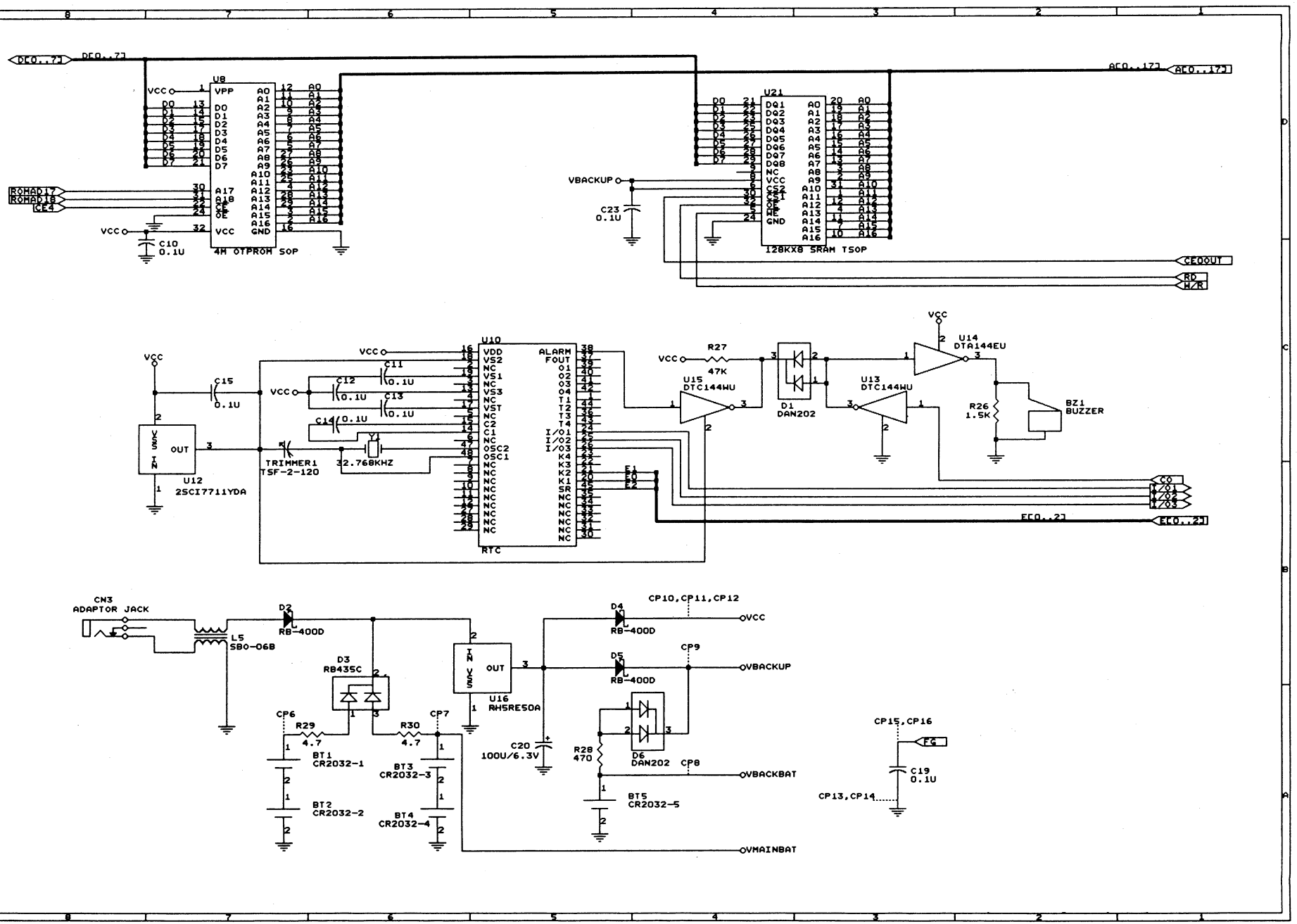


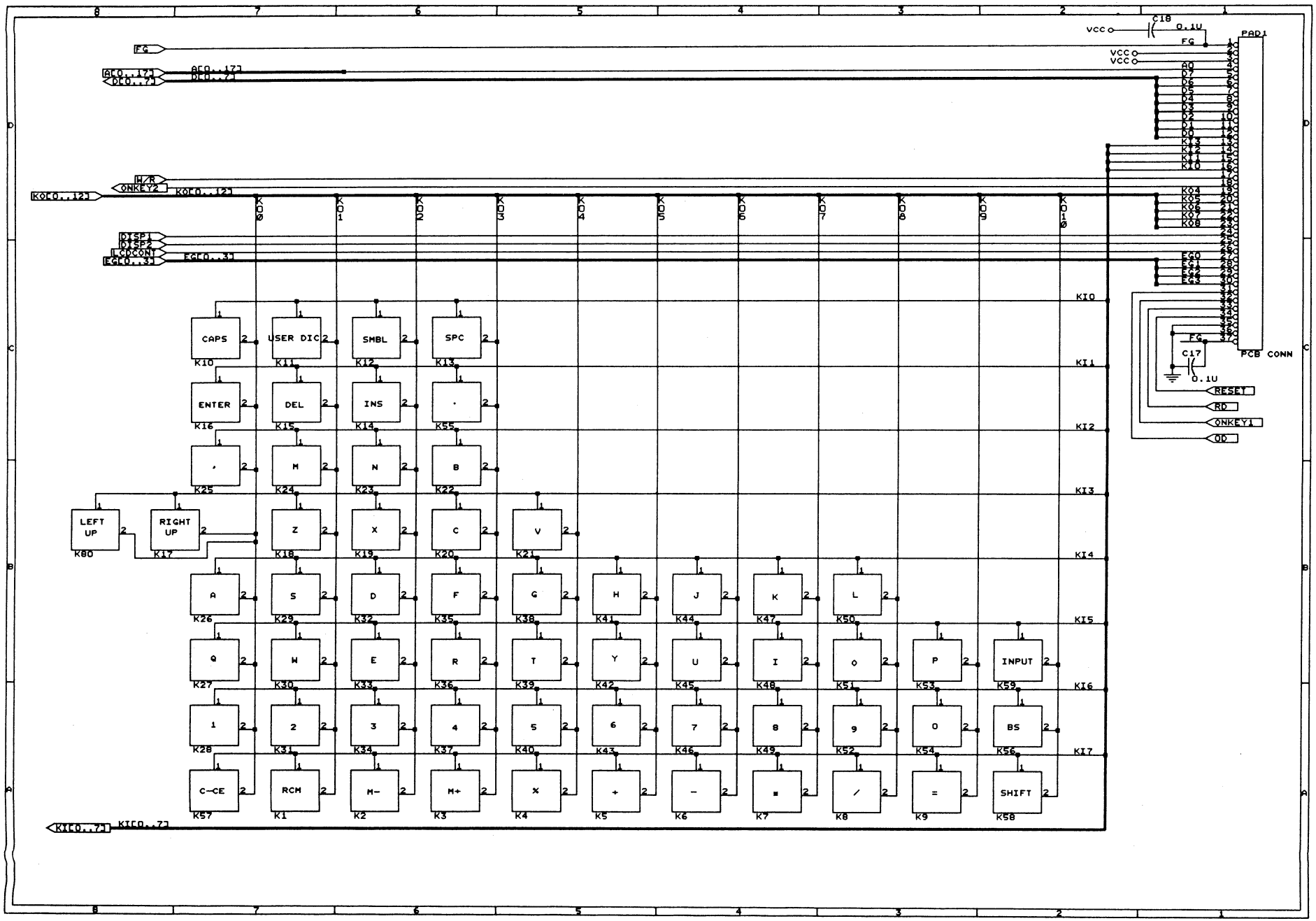

DE0..7]
DE0..7]
U8
VPP
4M OTPROM SOP
ROMAD17
ROMAD18
CE4
C10
0.1U
U9
32KX8 SRAM TSOP
VBACKUP
C8
0.1U
U11
32KX8 SRAM TSOP
C9
0.1U
AE0..17]
AE0..17]
CE0OUT
CE1OUT
RD
W/R
U10
RTC
C11
C12
C13
C14
C15
0.1U
Y1
32.768KHZ
TRIMMER1
TSF-2-120
U12
2SCI7711YDA
R27
47K
U15
DTC144HU
U13
DTC144HU
U14
DTA144EU
D1
DAN202
R26
1.5K
BZ1
BUZZER
CE0
CE1
RD
W/R
E0..2]
E0..2]
CN3
ADAPTOR JACK
L5
SB0-06B
D2
RB-400D
D3
RB435C
U16
RH5RE50A
D4
RB-400D
D5
RB-400D
D6
DAN202
CP10,CP11,CP12
CP9
CP8
VCC
VBACKUP
VBACKBAT
VMAINBAT
CP6
CP7
R29
4.7
R30
4.7
BT1
CR2032-1
BT2
CR2032-2
BT3
CR2032-3
BT4
CR2032-4
BT5
CR2032-5
C20
100U/6.3V
R28
470
CP15,CP16
FG
C19
0.1U
CP13,CP14


FG
AD0..17
DD0..7
H/R
ONKEY2
KOD0..12
DISP1
DISP2
LCDCONT
EGD0..3
KI0
KI1
KI2
KI3
KI4
KI5
KI6
KI7
KI0..7
KO0
KO1
KO2
KO3
KO4
KO5
KO6
KO7
KO8
KO9
KO10
VCC
C18
0.1U
PAD1
PCB CONN
C17
RESET
RD
ONKEY1
DD
CAPS
USER DIC
SMBL
SPC
ENTER
DEL
INS
.
,
M
N
B
LEFT UP
RIGHT UP
Z
X
C
V
A
S
D
F
G
H
J
K
L
Q
W
E
R
T
Y
U
I
O
P
INPUT
1
2
3
4
5
6
7
8
9
0
BS
C-CE
RCM
M-
M+
X
+
-
=
SHIFT

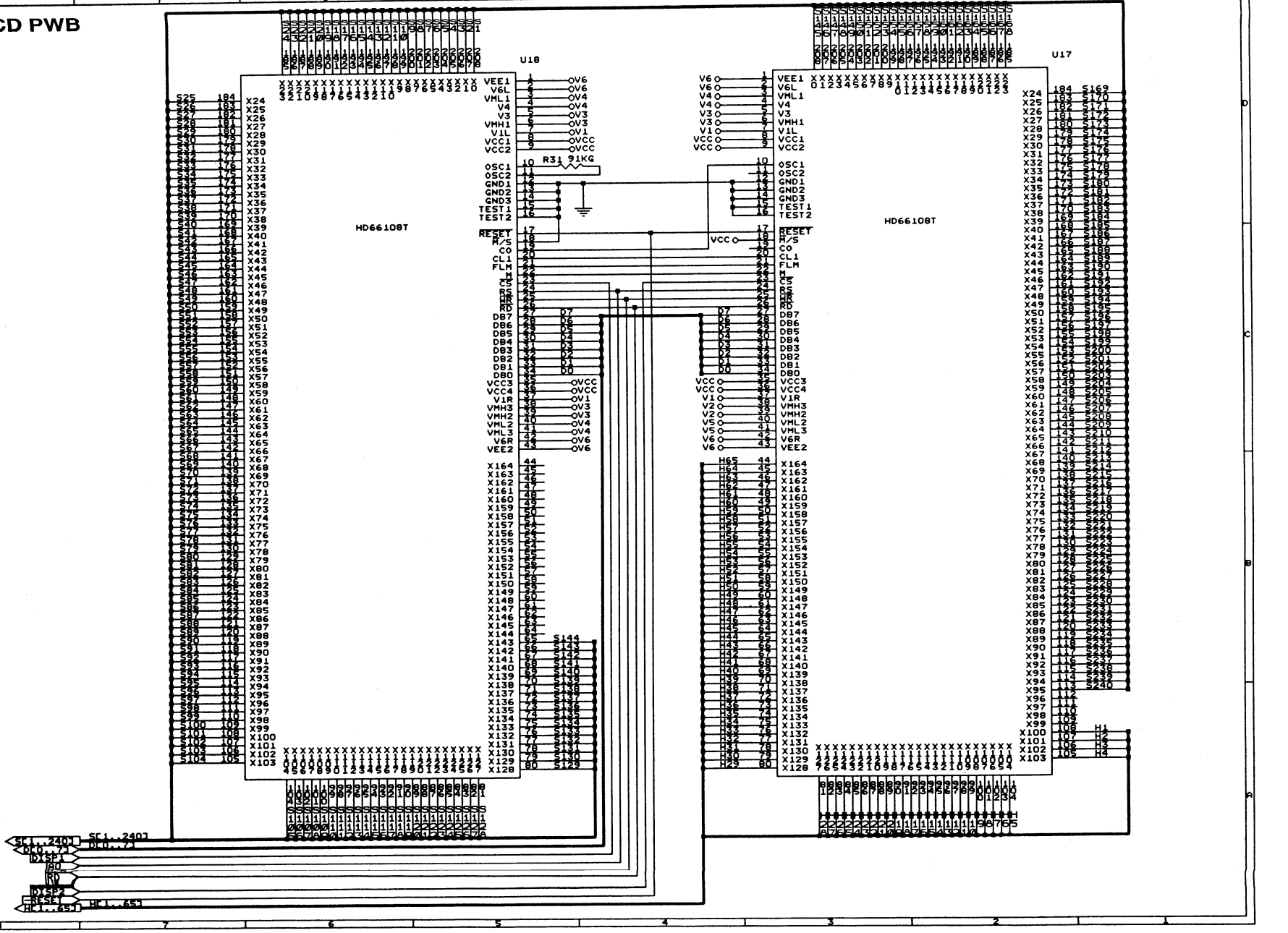
2. Main PWB (YO-610, ZQ-6200, ZQ-6300M)

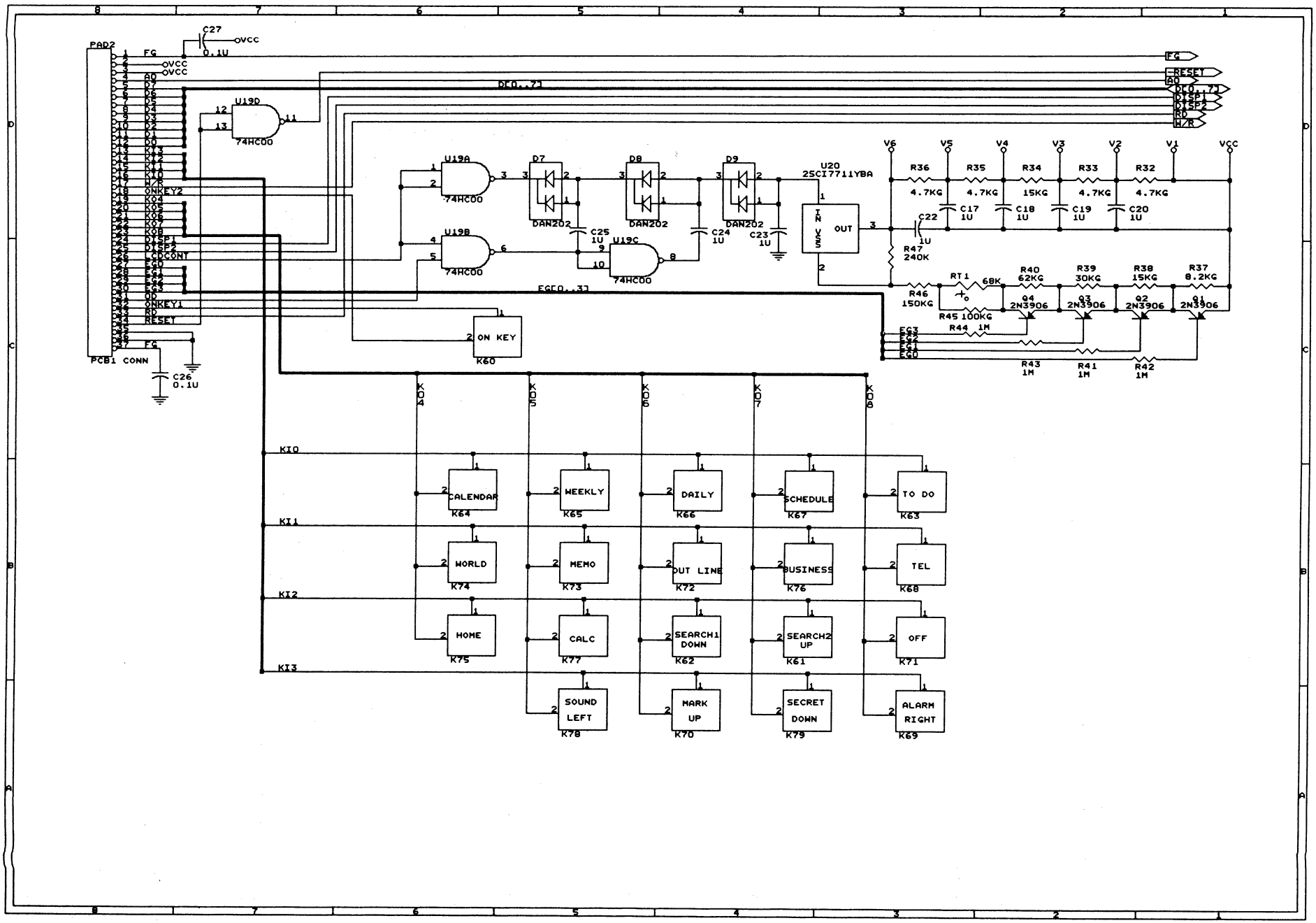


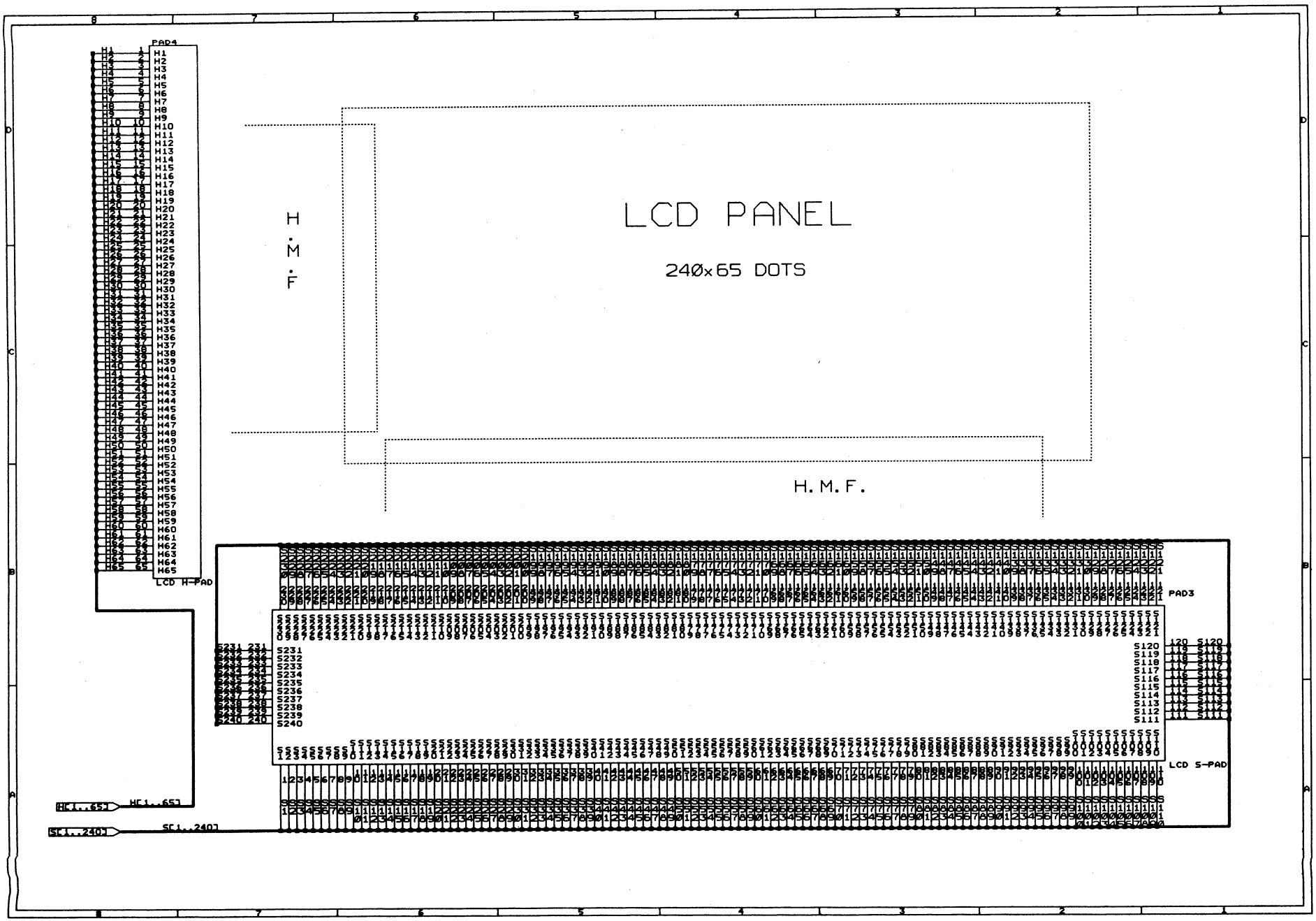

DC0..7]
DF0..7]
U8
4M OTPROM SOP
ROMAD17
ROMAD18
CE4
C10
0.1U
AF0..17]
AC0..17]
U21
128KX8 SRAM TSOP
VBACKUP
C23
0.1U
CE00UT
RD
W/R
U10
RTC
C11
C12
C13
C14
C15
0.1U
U12
2SCI7711YDA
TRIMMER1
TSF-2-120
32.768KHZ
Y1
R27
47K
U15
DTC144WU
D1
DAN202
U13
DTC144WU
U14
DTA144EU
R26
1.5K
BZ1
BUZZER
EC0..2]
CN3
ADAPTOR JACK
L5
SB0-06B
D2
RB-400D
D3
RB435C
U16
RH5RE50A
D4
RB-400D
D5
RB-400D
D6
DAN202
CP10,CP11,CP12
VCC
CP9
VBACKUP
CP8
VBACKBAT
VMAINBAT
CP6
CP7
R29
4.7
R30
4.7
BT1
CR2032-1
BT2
CR2032-2
BT3
CR2032-3
BT4
CR2032-4
C20
100U/6.3V
R28
470
BT5
CR2032-5
CP15,CP16
FG
C19
0.1U
CP13,CP14


FG
AI0..17
DI0..7
H/R
ONKEY2
KOE0..12
KOE0..12
DISP1
DISP2
LCDCONT
EGE0..3
EGE0..3
KO0
KO1
KO2
KO3
KO4
KO5
KO6
KO7
KO8
KO9
KO10
KI0
KI1
KI2
KI3
KI4
KI5
KI6
KI7
KIE0..7
KIE0..7
VCC
C18
0.1U
PAD1
PCB CONN
C17
RESET
RD
ONKEY1
OD
CAPS
USER DIC
SMBL
SPC
ENTER
DEL
INS
.
,
M
N
B
LEFT UP
RIGHT UP
Z
X
C
V
A
S
D
F
G
H
J
K
L
Q
W
E
R
T
Y
U
I
O
P
INPUT
1
2
3
4
5
6
7
8
9
0
BS
C-CE
RCM
M-
M+
×
+
-
=
/
SHIFT

3. LCD PWB

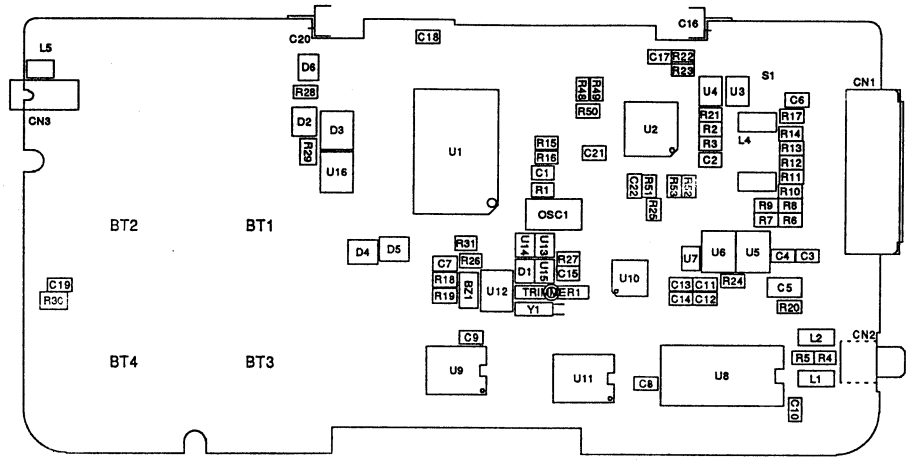

U18
HD66108T
U17
HD66108T
R31 91KG
SC1..240]
DC0..7]
DISP1
RD
WR
DISP2
RESET
HC1..65]


PAD2
PCB1 CONN
C27
0.1U
C26
0.1U
OVCC
FG
U19D
74HC00
U19A
U19B
U19C
D7
D8
D9
DAN202
C25 1U
C24 1U
C23 1U
U20
2SCI7711YBA
IN
VSS
OUT
C22 1U
R47 240K
R36 4.7KG
R35 4.7KG
R34 15KG
R33 4.7KG
R32 4.7KG
C17 1U
C18 1U
C19 1U
C20 1U
V6
V5
V4
V3
V2
V1
VCC
R46 150KG
RT1 68K
R45 100KG
R44 1M
R40 62KG
R39 30KG
R38 15KG
R37 8.2KG
Q4 2N3906
Q3 2N3906
Q2 2N3906
Q1 2N3906
R43 1M
R41 1M
R42 1M
DC0..7
EGC0..3
RESET
WR
RD
H/R
ONKEY2
ONKEY1
DISP1
DISP2
CRCONT
ON KEY
K60
K04
K05
K06
K07
K08
KI0
KI1
KI2
KI3
CALENDAR K64
WEEKLY K65
DAILY K66
SCHEDULE K67
TO DO K63
WORLD K74
MEMO K73
OUT LINE K72
BUSINESS K76
TEL K68
HOME K75
CALC K77
SEARCH1 DOWN K62
SEARCH2 UP K61
OFF K71
SOUND LEFT K78
MARK UP K70
SECRET DOWN K79
ALARM RIGHT K69

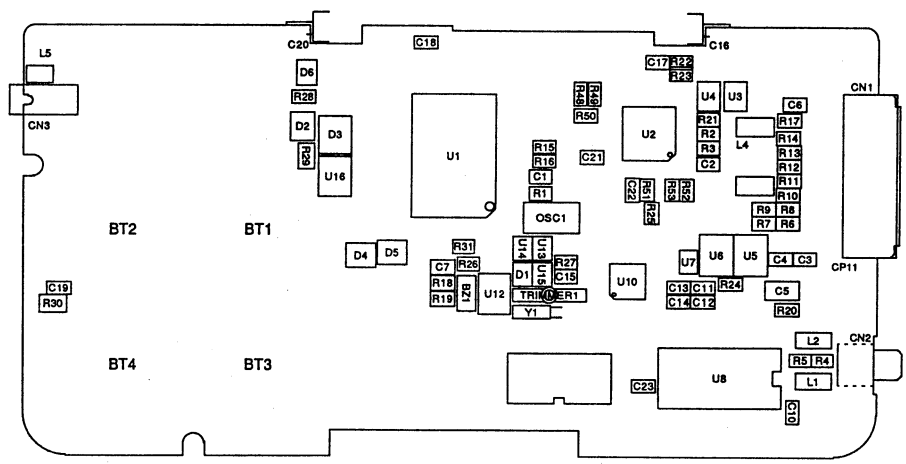

LCD PANEL
240x65 DOTS
H.M.F.
H
M
F
H.M.F.
PAD4
LCD H-PAD
PAD3
LCD S-PAD
H[1..65]
S[1..240]

26. Parts signals arrangement

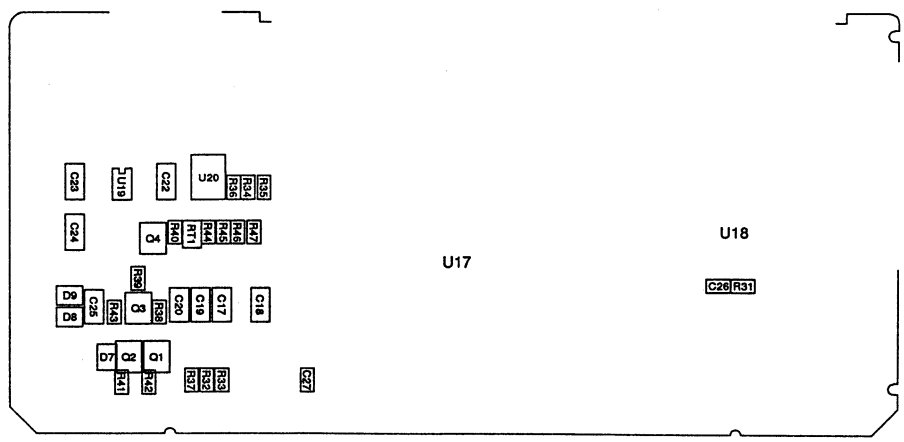
1. Main PWB (YO-600, ZQ-6000, ZQ6100M)



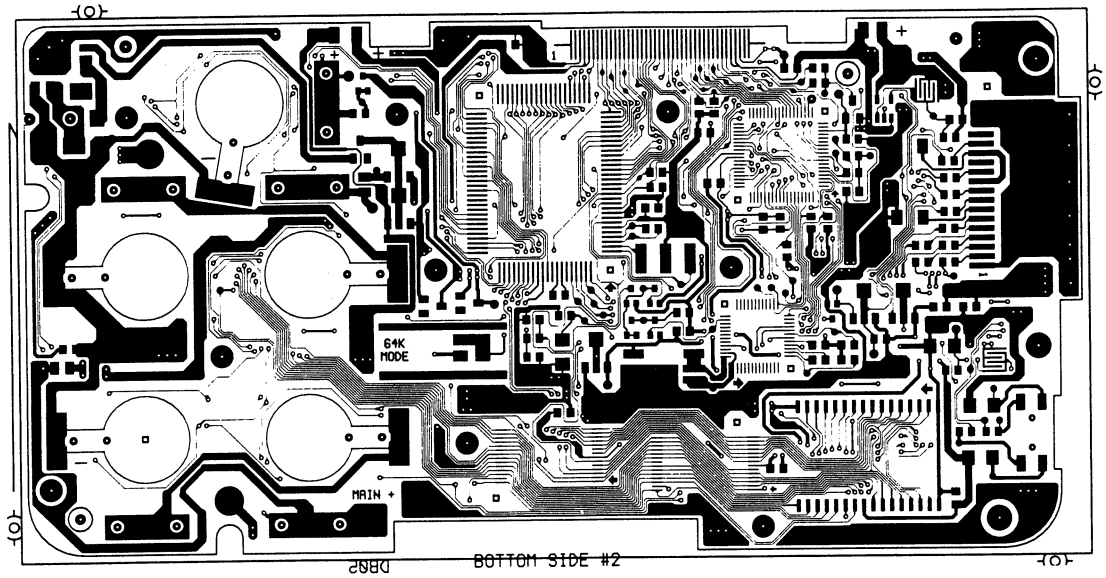
2. Main PWB (YO-610, ZQ-6200, ZQ-6300M)



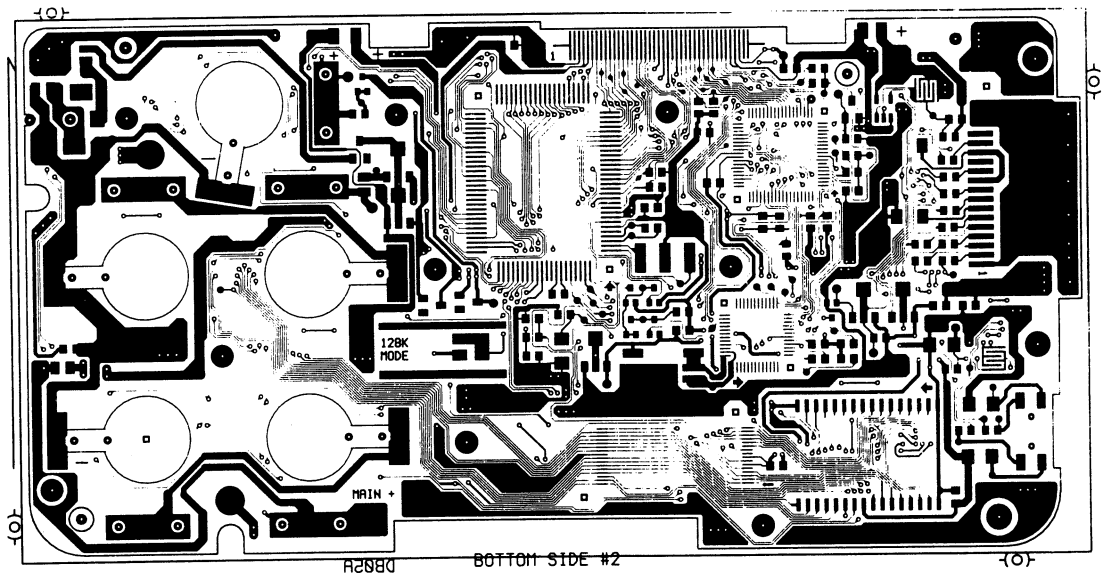
3. LCD PWB



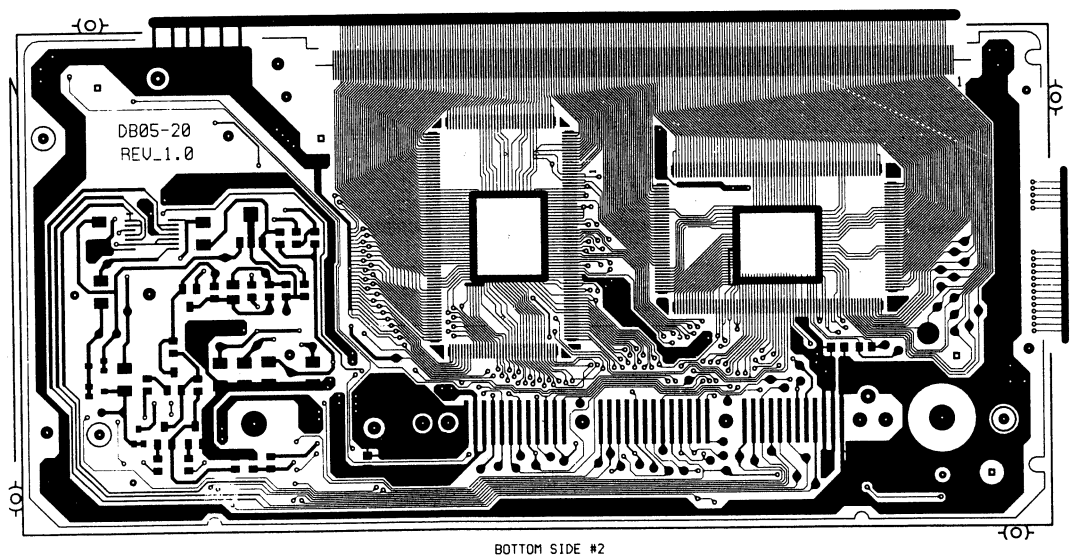
1. Main PWB (YO-600, ZQ-6000, ZQ6100M)



2. Main PWB (YO-610, ZQ-6200, ZQ-6300M)



3. LCD PWB

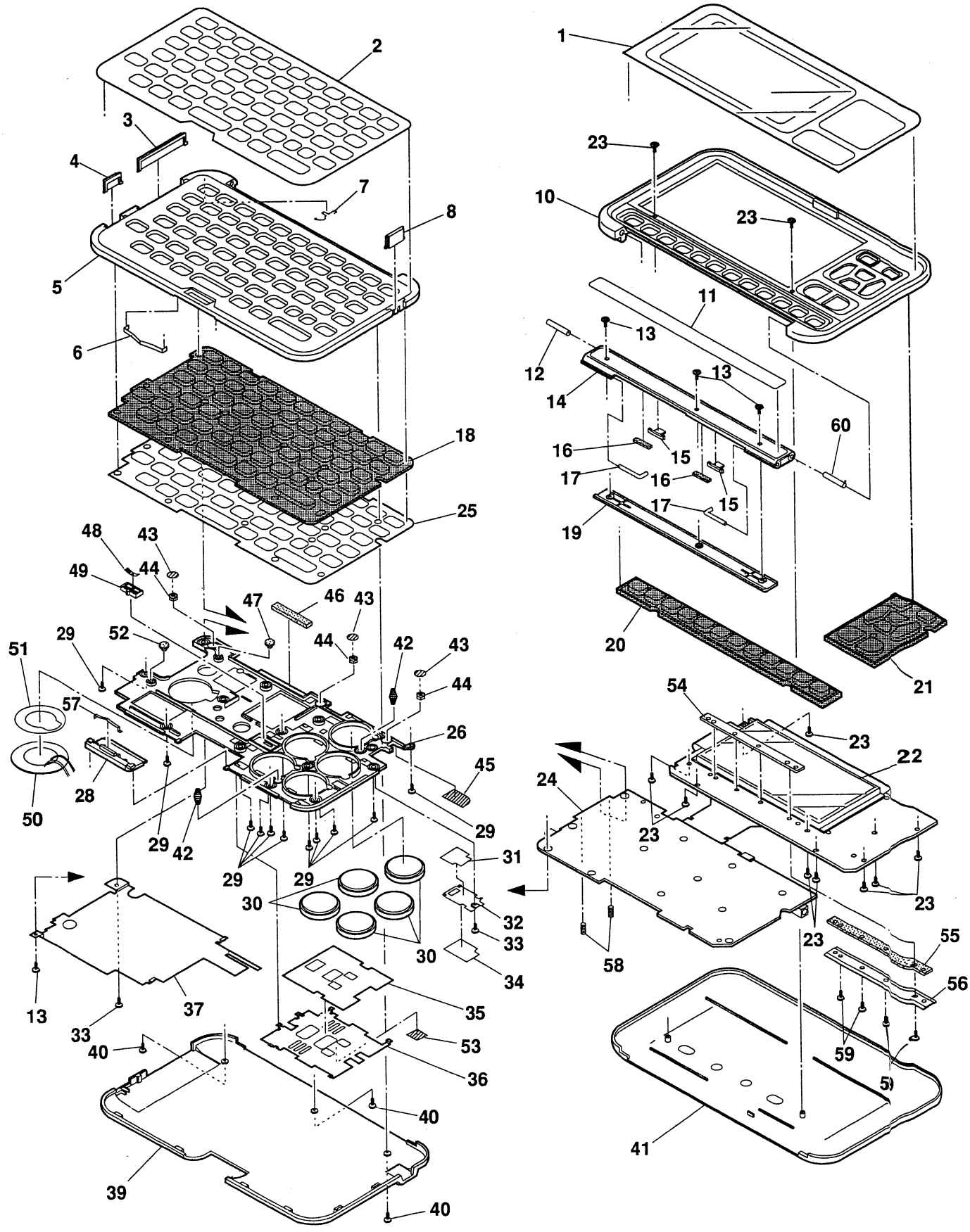


27. Parts list & guide

1 Cabinet etc.

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	0EEEL50005G101	AW	N	C	O.P overlay	[YO600]
	0EEEL50005G501	AW	N	C	O.P overlay	[YO610]
	0EEEL50005G209	AW	N	C	O.P overlay	[ZQ6000]
	0EEEL50005G608	AW	N	C	O.P overlay	[ZQ6200]
	0EEEL50005G306	AW	N	C	O.P overlay	[ZQ6100M]
	0EEEL50005G705	AW	N	C	O.P overlay	[ZQ6300M]
2	0EEEL50004G106	AV	N	C	KB overlay	
3	0EEFC00285000 9	AD	N	C	Door cover (1)	
4	0EEFC00285001 7	AD	N	C	Door cover (2)	
5	0EEFAADB050107	AN	N	C	KB upper cabinet	
6	0EEEX03000590 2	AD	N	C	L/B plate (2)	
7	0EEEX01000530 3	AB	N	C	Ground spring (3)	
8	0EEFC00285002 5	AD	N	C	Door cover (3)	
10	0EEFAADB050000	AM	N	C	Dis upper cabinet	
11	0EEHGG0000940 8	AC	N	C	Hinge label	[YO600]
	0EEHGG0001030 9	AC	N	C	Hinge label	[YO610]
	0EEHGG0001050 3	AC	N	C	Hinge label	[ZQ6000]
	0EEHGG0001070 8	AC	N	C	Hinge label	[ZQ6200]
	0EEHGG0001060 1	AC	N	C	Hinge label	[ZQ6100M]
	0EEHGG0001080 5	AC	N	C	Hinge label	[ZQ6300M]
12	0EEFC00051002 2	AB	N	C	Hinge pin (I)	
13	0EEMABA000330 8	AA	N	C	Screw	
14	0EEFC00283000 8	AE	N	C	Hinge cover (1)	
15	0EEFC00284000 3	AD	N	C	Hinge stop	
16	0EELC10000041 0 2	AB	N	C	Hinge Rubber	
17	0EEFC00051001 4	AC	N	C	Hinge pin (L)	
18	0EELADB051000 6	AX	N	C	Rubber key (1)	
19	0EEFC00283001 6	AE	N	C	Hinge cover (2)	
20	0EELADB052000 1	AK	N	C	Rubber key(Dis−1)	
21	0EELADB053000 7	AM	N	C	Rubber key(Dis−2)	
22	0EEDB05XX3200Y	BS	N	E	LCD display PCB unit	
23	0EEMABA000220 4	AA	N	C	Screw	
25	0EELC16000790 6	AH	N	C	Sheet(Key)	
26	0EEFANDB050007	AK	N	C	Key chassis	
28	0EEFC00282000 2	AE	N	C	Latch Button	
29	0EEMABA000130 5	AA	N	C	Screw	
30	0EEGC20323TB01	AG	N	B	Batt(CR2032)	
31	0EEHGG0001100 3	AC	N	C	B/U Batt cover sheet	
32	0EEECDB051111 5	AF	N	C	B.U Batt cover	
33	0EEMABA000230 1	AA	N	C	Screw	
34	0EEHGG0000950 5	AB	N	C	Batt change label	
35	0EEHGG0001090 2	AB	N	C	Main Batt cover sheet	
36	0EEECDB051110 7	AH	N	C	Main Batt cover	
37	0EEEJ80001G104	AL	N	C	Shield plate	
39	0EEFABDB050103	BA	N	C	KB lower cabinet	
40	0EEMAA200013 0 4	AA		C	Screw	
41	0EEFABDB050006	AZ	N	C	O.P lower cabinet	[YO600/ZQ6000/ZQ6100M]
	0EEFABDB050201	AZ	N	C	O.P lower cabinet	[YO610/ZQ6200/ZQ6300M]
42	0EEEX01000520 6	AC	N	C	Ground spring (2)	
43	0EEHGG0001040 6	AA	N	C	Nut fixing tape	
44	0EEMD10000050 5	AC	N	C	Nut	
45	0EEHGG0001010 4	AA	N	C	Coil tape	
46	0EELC10000038 0 7	AC	N	C	KB Fixing Rubber	
47	0EEFC00281000 7	AB	N	C	Reset key pad	
48	0EEEF07DB02101	AC	N	C	Battery SW contact	
49	0EEFB1DB050000	AC	N	C	Battery SW knob	
50	0EECK274P00036	AE	N	B	Buzzer	
51	0EEHGG0000960 2	AC	N	C	Buzzer fixing tape	
52	0EELADEG210014	AB	N	C	Reset SW rubber	
53	0EEHGG0000930 1	AC	N	C	Caution label	
54	0EELC13000120 9	AK	N	C	Fixing plate (2)	
55	0EELC10000037 0 0	AE	N	C	Fixing Rubber (Dis)	
56	0EELC13000110 1	AF	N	C	Fixing plate (1)	
57	0EEEX03000580 5	AD	N	C	L/B plate (1)	
58	0EEEX01000510 9	AB	N	C	Ground spring (1)	
59	0EEMAA800063 0 2	AA	N	C	Screw	
60	0EEEX06000040 2	AB	N	C	Hinge pin	

1 Cabinet etc.



2 Packing Material & Accessories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	0EEHAH0DB05209	AH	N	D	Packing case [YO600]
2	0EEHAHDB05A200	AH	N	D	Packing case [YO610]
3	0EEHAH0DB05403	AH	N	D	Packing case [ZQ6000]
4	0EEHAHDB05A404	AH	N	D	Packing case [ZQ6200]
5	0EEHAH0DB05306	AH	N	D	Packing case [ZQ6100M Canada]
	0EEHAH0DB05501	AH	N	D	Packing case [ZQ6100M Other countries]
6	0EEHAHDB05A307	AH	N	D	Packing case [ZQ6300M Canada]
	0EEHAHDB05A501	AH	N	D	Packing case [ZQ6300M Other countries]
7	0EEHC6G0010013	AM	N	D	Packing add [YO600]
8	0EEHC6G0010056	AM	N	D	Packing add [YO610]
9	0EEHC6G0010021	AM	N	D	Packing add [ZQ6100]
10	0EEHC6G0010064	AM	N	D	Packing add [ZQ6200]
11	0EEHC6G0010030	AM	N	D	Packing add [ZQ6100M Canada]
	0EEHC6G0010048	AM	N	D	Packing add [ZQ6100M Other countries]
12	0EEHC6G0010072	AM	N	D	Packing add [ZQ6300M Canada]
	0EEHC6G0010081	AM	N	D	Packing add [ZQ6300M Other countries]
13	0EEHB2G0020012	AM	N	D	Packing case [YO600]
14	0EEHB2G0020055	AM	N	D	Packing case [YO610]
15	0EEHB2G0020021	AM	N	D	Packing case [ZQ6000]
16	0EEHB2G0020063	AM	N	D	Packing case [ZQ6200]
17	0EEHB2G0020030	AM	N	D	Packing case [ZQ6100M Canada]
	0EEHB2G0020047	AM	N	D	Packing case [ZQ6100M Other countries]
18	0EEHB2G0020071	AM	N	D	Packing case [ZQ6300M Canada]
	0EEHB2G0020080	AM	N	D	Packing case [ZQ6300M Other countries]
19	0EEHDH0DB05E04	AY	N	D	Instruction book [for YO600/YO610]
20	0EEHDH0DB05001	AY	N	D	Instruction book [for ZQ6000/ZQ6200]
21	0EEHDH0DB05A01	AY	N	D	Instruction book [for ZQ6100M/ZQ6300M English]
22	0EEHDH0DB05F07	AY	N	D	Instruction book [for ZQ6100M/ZQ6300M French]
23	0EEHDH0DB05G00	AY	N	D	Instruction book [for ZQ6100M/ZQ6300M Germany]
24	0EEHDH0DB05L05	AY	N	D	Instruction book [for ZQ6100M/ZQ6300M Italian]
25	0EEHDH0DB05S09	AY	N	D	Instruction book [Spanish]
26	0EEHF6000011521	AB	N	D	Guaranty [Australia]
27	0EEHF6000010524	AB		D	Guaranty [Canada]
28	0EEHF2G0001804	AC	N	C	Card [YO600/YO610]
29	0EEHF2G0002100	AC	N	C	Card [Australia]
30	0EEHF2G0002207	AC	N	C	Card [Canada]
31	TCADZ2003CCZZ	AB		C	Name plate [YO600/YO610]
32	TCADZ1808CCZZ	AA		C	Noise label [Canada]
33	TCADZ1005PCZZ	AC	N	C	IC card catalog [Canada]
34	TLABN1936CCZZ	AA		C	Serial No. label
35	0EEHGG0000800 2	AA	N	C	F Mark label [Germany/Netherland]
36	0EEHK3DB050006	AA	N	D	Static PE BAG
37	0EEHE0DB050005	AA	N	D	Dummy paper pad [Netherland]

3 Main PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	VHiLH534HF4−1	AX	N	B	IC [U8]
2	VHiLZ93BC0/−1	AR	N	B	IC [U2]
3	VHiSMC6115F1P	AV		B	IC (SMC6115F1P) [U10]
4	VHiSC62015C03	AZ		B	IC (SC62015C03) [U1]
5	VHiCXK58257A1	AY		B	IC (CXK58257A1) [U9] [YO600/ZQ6000/ZQ6100M]
	VHiCXK58257A1	AY		B	IC (CXK58257A1) [U11] [YO600/ZQ6000/ZQ6100M]
6	VHiCX1100T12L	BF		B	IC (CX1100T12L) [U21] [YO610/ZQ6200/ZQ6300M]
7	QCNCM1416CC0D	AE		C	Connector (4pin) [CN2]
8	QCNCW1368CC1E	AM		C	Connector (15pin) [CN1]
9	QJAKE1027CCZZ	AD		B	Power supply jack [CN3]
10	RCRM−1022CCZZ	AE		B	Oscillator (3.072MHz) [OSC1]
11	RH−DZ1001ECZZ	AD		B	Diode (1SR148) [D2,D4,D5]
12	RH−DZ1014CCZZ	AE		B	Diode (RB435C) [D3]
13	VSDTC144WU/−1	AB		B	Transistor (DTC144WU) [U7,U13,U15]
14	VSDTA144EU/−1	AB		B	Transistor (DTA144EU) [U14]
15	VHDDAN202U/−1	AB		B	Diode (DAN202U) [D1,D6]
16	VHiRH5RE50AA1	AF		B	IC (RH5RE50AA1) [U16]
17	VHiMN13821−T1	AF		B	IC (MN13821−T1) [U4]
18	VHiRH5VA25C−1	AE		B	IC (RH5VA25C) [U9]
19	VHiRH5VA35C−1	AE		B	IC (RH5VA35C) [U5]
20	VHiSCi7711YT1	AF		B	IC (SCI7711YT1) [U12]
21	VHiTC7S32F/−1	AC		B	IC (TC7S32FTPR) [U3]
22	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C1~C15,C17~C19,C21,C22]
23	RC−CZ1093CCZZ	AB		C	Capacitor (0.1μF) [C5]
24	VRS−CY1JD102J	AA		C	Resistor (0.063W 1.0KΩ ±5%) [R6~R14]
25	VRS−CY1JD104J	AA		C	Resistor (0.063W 100KΩ ±5%) [R15,R25]
26	VRS−CY1JD105J	AA		C	Resistor (1/16W 1.0MΩ ±5%) [R48~R53]
27	VRS−CY1JD123G	AA		C	Resistor (1/16W 12KΩ ±2%) [R23]
28	VRS−CY1JD123J	AA		C	Resistor (1/16W 12KΩ ±5%) [R18]
29	VRS−CY1JD124G	AA		C	Resistor (1/16W 120KΩ ±2%) [R22]
30	VRS−CY1JD152J	AA		C	Resistor (0.063W 1.5KΩ ±5%) [R26]
31	VRS−CY1JD185J	AA		C	Resistor (1/16W 1.8MΩ ±5%) [R1]

3 Main PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
32	VRS-CY1JD332J	AA		C	Resistor (1/16W 3.3KΩ ±5%)	[R4,R5]
33	VRS-CY1JD471J	AA		C	Resistor (0.063W 470Ω ±5%)	[R28]
34	VRS-CY1JD473J	AA		C	Resistor (0.063W 47KΩ ±5%)	[R16,R27]
35	VRS-CY1JD564J	AA		C	Resistor (1/16W 560KΩ ±5%)	[R21]
36	VRS-CY1JD824J	AA		C	Resistor (1/16W 820KΩ ±5%)	[R17,R19,R20,R24]
37	VRS-CY1JD824G	AA	N	C	Resistor (0.063W 820KΩ ±2%)	[R2,R3]
38	VRS-CY1JD4R7J	AA	N	C	Resistor (0.063W 4.7Ω ±5%)	[R29,R30]
39	RC-EZ107GCC0J	AA		C	Capacitor (6.3V 100μF)	[C20]
40	RC-KZ1057CCZZ	AD		C	Capacitor (Trimmer 9M/M)	[TRIMER]
41	0EEDC1500066605	AK	N	C	Coil	[L1,L2]
42	RCiLZ1032CCZZ	AD		C	Coil (Min.15μH)	[L3]
43	RFiLN1009CCZZ	AE		C	Bifilar winding coil (filter)	[L1,L2]
44	RCRSP1075CCZZ	AC		B	Crystal (32.768KHz)	[Y1]
45	0EEEX0100051 09	AB	N	C	Connector spring	
46	0EEHGG0000960 2	AC	N	C	Crystal Fixing tape	
47	0EEHGG0000990 4	AD	N	C	PET B.U. Tape	
48	0EEHGG0000970 0	AC	N	C	BATT Label(−)L	
49	0EEHGG0000980 7	AC	N	C	BATT Label(−)S	
50	0EEEF01DB051 03	AC	N	C	Batt plate(+)	
51	0EEEF02DB051 06	AC	N	C	Batt plate(−)	
52	0EEHGG0001010 4	AA	N	C	Coil insulate tape	
53	0EEDADB05XX119	AU	N	C	FPC	

4 LCD display PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	0EEEA4DB051101	AF	N	C	LCD plate	
2	0EELC1000039 04	AD	N	C	LCD cushion	
3	VCKYTQ1EF105Z	AB		C	Capacitor (25WV 1.0μF)	[C17~C20,C22~C25]
4	VHDDAN202U/−1	AB		B	Diode (DAN202U)	[D6,D7,D9]
5	0EEAB0HC0000T0	AK	N	B	IC (74HC00)	[U19]
6	0EEAB0771100T7	AN	N	B	IC (SCI7711YBA)	[U20]
7	0EEBBX3906L806	AD	N	B	Transistor (2N3906)	[Q1,Q2,Q3,Q4]
8	VRS-CY1JD105J	AA		C	Resistor (1/16W 1.0MΩ ±5%)	[R41,R42,R43,R44]
9	VRS-CY1JD802G	AA	N	C	Resistor (0.063W 8.0KΩ ±2%)	
10	VRS-CY1JD153G	AA		C	Resistor (0.063W 15KΩ ±2%)	[R34]
11	VRS-CY1JD104G	AA	N	C	Resistor (0.063W 100KΩ ±2%)	[R38]
12	VRS-CY1JD244G	AA	N	C	Resistor (0.063W 240KΩ ±2%)	[R47]
13	VRS-CY1JD472G	AA	N	C	Resistor (0.063W 4.7KΩ ±2%)	[R32,R33,R35,R36]
14	VRS-CY1JD303G	AA	N	C	Resistor (0.063W 30KΩ ±2%)	[R39]
15	VRS-CY1JD623G	AA	N	C	Resistor (0.063W 62KΩ ±2%)	[R40]
16	VRS-CY1JD154J	AA		C	Resistor (0.063W 150KΩ ±5%)	[R46]
17	VRS-CY1JD913J	AA		C	Resistor (0.063W 91KΩ ±5%)	[R31]
18	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF)	[C26,C27]
19	0EECC6802461T5	AM	N	B	Thermistor	[RT1]
	(Unit)					
901	0EEDB05XX32 00Y	BS	N	E	LCD display PCB unit	

ZQ-6000

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SHARP CORPORATION
Information Systems Group
Quality & Reliability Control Center
Yamatokoriyama, Nara 639-11, Japan
1992 December Printed in Japan Ⓢ